BEING A BICYCLIST: A DRAMATURGICAL ANALYSIS OF BICYCLING AND PEOPLE WHO RIDE BIKES

by

Aaron Samuel Johnson

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written by Aaron Samuel Johnson has been approved for the Department of Sociology

Leslie Irvine
Jill Harrison
Rachel Rinaldo
Diane Sasnett-Martichuski
Zack Furness
Date

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ABSTRACT

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Every day we are compelled to move our bodies from place to place, from home to work, school, shopping, and back again. Most people accomplish this essential task by driving cars, but at a heavy cost to our health, economy, environment, and communities. And though bicycling as an alternative to driving represents an effective means of reducing these costs, rates of bicycling are remarkably low. At the pragmatic heart of this project, is the bicycling advocate's twofold question: why don't Americans 1) ride bikes more, and 2) drive cars less? This dissertation is a qualitative sociological study of the everyday phenomena of bicycling and people who ride bikes in which I explore the social psychological and interactional aspects of bicycling and people who ride bikes in an effort to respond to the Advocate's Question.

My response is informed by five years of formal participant observation, and five more of autoethnographic and opportunistic observations made "from the saddle" (Conley 2012). Additionally, I analyze the discussion of "bicyclists" found in the news, entertainment, and social media, official documents, as well as the voices of over 45 people who ride bikes, acquired *in situ*, and through in-depth, qualitative interviews.

I frame my response using a unique combination of assemblage theory and Goffmanian dramaturgy and show that not all people who ride bikes are "bicyclists". Bicyclists are of special interest to this project because it is their riding practices and performances of the bike rider role, particularly the ways in which they avoid, manage, and overcome the challenges and difficulties faced by people who ride bikes as an alternative to driving, that are the answer to the Advocate's Question. With this dissertation I offer three contributions the effort to respond to the Advocate's Question and the sociological study of our everyday embodied mobility: (1) a "neo-Goffmanian" theoretical framework; (2) a "stagers and scenes" approach to understanding bicycling and other modes of everyday embodied mobility and, (3) a typology that distinguish bicyclists from other people who ride bikes.

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It is by riding a bicycle that you learn the contours of a country best, since you have to sweat up the hills and can coast down them. Thus, you remember them as they actually are, while in a motorcar only a high hill impresses you, and you have no such accurate remembrance of country you have driven through as you gain by riding a bicycle.

~ Ernest Hemingway

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CHAPTER 1: INTRODUCTION

EVERYDAY EMBODIED MOBILITY

Practically every day we are compelled out of biological, psychological, and social necessity to move our bodies from place to place. We move our bodies from home to work, school, and shopping, and back again. We move our bodies for fitness and for fun, for work, to be sociable, and for the sheer thrill of it. Indeed, embodied mobility is an all-but universal, intensely personal, visceral human experience – akin to what we eat, where we live, how we work, and with whom (or what) we sleep. Yet considering such, embodied mobility *per se* has been a remarkably under-studied phenomenon in sociology.

Historically, transportation scholars, and thus planners, engineers, and officials, have conceptualized everyday embodied mobility in terms of abstract, dimensionless "trips" between points A and B that are over as soon as they begin (Cresswell 2006; Jensen 2009:152). More so, they assume that the time, energy, and effort required to make a trip are "costs" that rational actors seek to minimize, and whose value is realized only at the completion of a trip (Cass and Faulconbridge 2015). However, contemporary mobilities scholars working to further the "mobilities turn" (Cresswell 2011; Sheller 2014, 2017) have observed a remarkable amount of social life emerge *en route* from the interplay of a number of "irrational", social psychological, and interactional phenomena such as sensuous embodied experiences (Jones 2012; Strengers 2014), emotions (Löfgren 2008; Sheller 2004), identities (Adey et al. 2012; Heinen 2016), as well as symbolic and cultural meanings (Cresswell 2010; Jensen 2009; Vannini 2010). Indeed, everyday embodied mobility is far from a purely rational endeavor. Considering such, a qualitative/interpretive approach to everyday embodied mobility that recognizes people's

lived experiences of everyday embodied mobilities as being affectively, as well as effectively, important is crucial for understanding why people travel in the ways they do (Anable and Gatersteben 2005; Cass and Faulconbridge 2015).

Though riding a bike is only one of many modes of everyday embodied mobility through which I might explore the social psychological and interactional dimensions of everyday embodied mobility, I have chosen to focus on bicycling and people who ride bikes. As I will detail in the coming chapters, I come to this project with a strong personal interest in bicycling and years of experience riding for fun, competition, transportation, and work. More so, the communities in which I live and work, Boulder and Denver afford numerous opportunities to observe a large variety of people who ride bikes, their riding practices, and presentations of self. Also, there is a growing interest in bicycling as a recreational activity as well as a means of addressing several serious social, environmental, economic, and health-related problems, making bicycling and people who ride bikes a relevant, timely topic of study.

CAR DOMINATION: AUTOMOBILITY AND BICYCLING

"Arguably, nothing since the plough has changed the face of the earth and the life of mankind anywhere near as much. Usually, geography and physical nature — or even Sartre's man-transformed camp practico-inert — will restrict or fashion social practices. With the car it's the other way around: Like no other, this mobile technological product has transformed others, even real estate and geography, on a scale unsurpassed in history. The car had roads built, not conversely. China's Great Wall was rumoured formerly to be the only man-made structure visible from the Moon. Today a number of motorway networks easily beats it" (Otnes, 1986: 110, quoted in Jensen 1999).

Like most mobilities scholars, I use the term *automobility* to refer to the institutionalization of privately owned cars as the primary means of everyday embodied mobility.¹ Initially, the term automobility narrowly referred to the "fact and experience of being auto-mobile,"

of driving a car" (Paterson 2007: 25). Subsequently, mobilities scholars have broadened this individual-level definition to also include a recognition of the complex ways in which car use is sustained, and to refer to a "system" (Urry 2004: 26), or "regime" (Bohm et al. 2006:4-6), of socio-technical institutions, infrastructures, practices, and ideologies (see Gorz 1973) that make the act of driving a car possible, much less practical (Bohm et. al. 2006; Paterson 2007; Urry 2004).

To be sure, automobility is one of the principal socio-technical institutions through which neoliberal modernity is realized, and through which our dedication to, and dependence on cars is rationalized and legitimized (Bohm et al 2006).² While laypersons and experts alike agree that automobility comes at a cost, not all would agree that the costs are problematic, but rather inevitable and/or "worth it". Thus, I use the term hyperautomobility to denote a critical perspective on automobility, one that views the associated costs as excessive, if not regressive and discriminatory, and implicated in several today's most serious and intractable health, economic, environmental, and social problems (Cohen 2006). Generally speaking, hyperautomobility is marked by frequent, individualized trips by car spanning ever-increasing distances, necessitated by urban sprawl and the geographic distancing of work, home, and sites of consumption (Fotsch 2007; Handy 1993, 2002; Newman and Kenworthy 2015; Vannini 2012). However, there is no one widely used measure or threshold for determining hyperautomobility, though common measures include miles per vehicle, hours spent in traffic, vehicles per household and annual traffic fatality rate.3 But any way you measure it, the costs of hyperautomobility are significant, widespread, and realized in a variety of currencies: 1)

harm to human health, 2) economic expenses, 3) environmental damage, and 4) social problems.

Harm to Human Health

With upwards of 33,000 fatalities and 2 million injuries per year, motor vehicle crashes are one of the leading causes of death in the U.S., and first among "accidents" (Murphy, Xu and Kochanek 2013). Globally, motor vehicle crashes kill about 1.3 million people and seriously injured 20–50 million more every year. By 2020, motor vehicle crashes are expected to become the third most serious threat to human health in the world and are already the leading cause of death for individuals age 15 to 29 years, as well as for Americans traveling abroad (Toroyan 2015). Additionally, several chronic illnesses, including cardiovascular disease, asthma, chronic obstructive pulmonary disease, lung cancer, and diabetes are linked to breathing car exhaust (Wargo 2006). More so, almost 70% of Americans are overweight, and 35% are clinically obese, at least partly due to inactive lifestyles facilitated by hyperautomobility (Ogden et al. 2014; Rimm 2014).

Economic Expense

Hyperautomobility results in significant *economic expenses* at both household and societal levels. The daily commute for workers across the country averages almost an hour, and transportation costs hold a perennial place among the top three household expenditures. The average American commute is almost one-hour roundtrip (McKenzie 2015),⁴ and the average family spends over half of its income on housing and transportation costs combined (32% and 19% respectively). While 69% of American communities are deemed "affordable" when considering housing alone, this figure drops to 39% when transportation costs are added (Baker and Goodman 2014).⁵ Roadway

congestion and the subsequent decrease in economic productivity is equality costly. The average American spends over 42 hours per year stuck in traffic and the cost of traffic congestion in 2014 was estimated at \$160 billion in wasted fuel and lost productivity, or \$960 per traveler (Schrank et al. 2015).⁶ At \$1.2 trillion dollars car loans make up the largest third category of consumer debt (after home mortgages and student loans) (McCarthy 2019), and with 7 million Americans households in arears on car payments, some economist are saying that car loans are the next consumer debt bubble waiting to pop (Bliss 2019; Long 2019). And lest we forget that our state and local governments are practically broke, consider that the cost of building a four-lane urban highway averages \$68 million per mile (Hamilton, Hokkanen and Wood 2008), and nationally, the bill for deferred roadway maintenance is up to \$45.2 billion dollars as of 2015 (Jaffe 2015).

Environmental Damage

In thinking about the *environmental damage* caused by hyperautomobility, we see that motor vehicles account for almost one third of U.S. carbon emissions, second only to electricity generation (Hockstad and Weitz 2015).⁷ With cars consuming 70% of U.S. petroleum, hyperautomobility heavily contributes the environmental damage associated with oil extraction, transport, and refinement, including spills (both major and minor)⁸ and air pollution (Bae 2004; Deka 2004; Ells 1958; Lutz and Fernandez 2010; RITA 2014; Vivanco 2013). The environmental costs of roadway and parking facilities are similarly high. Dedicated car facilities in the U.S. (roads and parking) cover an area the size of Connecticut and alter the landscape in environmentally harmful ways such as filling in wetlands and narrowing river channels. Moreover, car-serving infrastructure constitutes a key element of urban sprawl in general (Bae 2004; Deka 2004; Ells 1958; Lutz and

Fernandez 2010; Vivanco 2013). Roadways also area a foremost source of harm to non-human life by interfering with animal migration and killing an estimated 1 million creatures *per day* in the U.S. alone (Erritzoe, Mazgajski and Rejt 2003; Seiler and Helldin 2006; Wollan 2012).⁹

Social Problems

Although difficult to quantify in terms of dollars, hyperautomobility is implicated in a number of *social problems*. By reducing opportunities for sociability (Simmel and Hughes 1949), hyperautomobility weakens social relationships and engenders alienation (Illich 1974). Similarly, hyperautomobility fosters individuality, competition, and a rejection of collective responsibility (Vivanco 2013), aggressiveness (Katz 1999), and domination by way of "movement, speed, and escape" (Bauman 2000). Finally, hyperautomobility both reflects and reproduces social inequalities, and is at the heart of many instances of "spatial injustices" (Soja 2010). The regressive nature of privatized car-ownership, coupled with car dependence, inconveniences, endangers, and limits the mobility of members of marginalized social categories, including youth and the elderly, the poor, the disabled, those legally prohibited from driving, members of immigrant groups, and those who simply choose not to drive (Cass, Shove and Urry 2005; Gorz 1973; Illich 1974; Vivanco 2013).

While not a panacea for all that ails our everyday embodied mobilities, surely, driving less and bicycling more would reduce the heavy costs of our current institution of hyperautomobility. With over a billion bikes built (double the number of cars) and 50% of U.S. household trip destinations located within 3 miles of their origin (RITA 2014),¹⁰ bicycling seems to be a reasonable alternative to driving for many, if not most, people

and trips (Vivanco 2013). Not only do bicycles cost less than cars to purchase and maintain – on average, a family will save over \$10,000 per year by giving up a car (Baker and Goodman 2014) - they require far less infrastructure and thus conserve space. money, and other valuable resources. 11 More so, investment in bicycling infrastructure and increased bicycling rates has been associated with increased business revenues and rents in bicycling-friendly areas. 12 The fact that the renowned bicycling infrastructure of Portland, Oregon was built in its entirety for what it cost to build just one mile of Interstategrade urban highway, epitomizes the economic benefits of bicycling (Geller 2011).¹³ Because the human body powers bicycles, they avoid the environmental cost associated with cars and their fuels, while at the same time requiring people to exercise, one of the simplest prophylactic treatments for obesity and diseases associated with inactivity. And though the connection between physical fitness, weight loss, and bicycling per se is largely anecdotal (albeit generally commonsensical), at least one study found that individuals lose an average of 13 pounds when they take up bicycling, even with no other changes in exercise or diet (Yeager 2012).¹⁴ According to French researchers, bicycling reduces health-care costs on average by about \$1,800 per year for people who commute at least three miles to work by bike, and even more notable, is research from Europe that suggests bicycling will actually extend your life (Fishman, Schepers and Kamphuis 2015; Schnohr et al. 2012). 15 Lastly, bicycles represent an "appropriate technology" 16 that is affordable for most, and whose use can contribute positively to efforts to address many spatial injustices (Gorz 1973; Illich 1974; Lowe 1989; Roberts 1995; Soja 2010).17 As philosopher, priest, and "maverick social critic" Ivan Illich puts it, "participatory democracy

demands low energy technology, and free people must travel the road to productive social relations at the speed of a bicycle" (Illich 1974:24).¹⁸

THE ADVOCATE'S QUESTION, AND A SOCIOLOGIST'S ANSWER

At the pragmatic heart of the proposed project, is the bicycling advocate's twofold question: why don't Americans 1) ride bikes more, and 2) drive cars less? Though clearly related, the answers to these questions are frequently, but not necessarily, the same. And while a definitive answer to the advocate's question has proven elusive (at least according to observed rates of bicycling), thinking sociologically about the question suggests a novel response. If we are to comprehend, predict, and increase rates of riding, we must take into account the "irrational", social psychological and interactional aspects of riding a bike. More so, bicycle scholars, advocates and planners must recognize that riding a bike – especially as an alternative to driving a car – is neither 1) statistically normal, 2) institutionally normed, nor 3) culturally normative, and thus by definition, "deviant". In the following paragraphs, I will elaborate on each of these dimensions of bicycling as deviance and the potential implications for the proposed study.

Normal

Despite the high costs of hyperautomobility, the ubiquity of bikes, and the seeming appropriateness of bicycling as a means of lowering those costs, few Americans are willing or able to ride a bike as an alternative to driving a car. Overall, a meager .6% of all trips, and a mere 1.8% of trips under three miles in the U.S. are made by bike. Actually, at all distances, even those less than one mile, driving a car is the most popular means of taking a trip (60% versus 2.25% of trips by bicycle) (Santos et al. 2011).²⁰ Even in top American bicycling communities such as Davis, California (23.2%), Boulder, Colorado

(10.5%) and Portland, Oregon (6.1%) (McKenzie 2014),²¹ and despite well-organized promotional efforts such as "Bike to Work Day", during which an estimated 21% of Denver metro area commuters rode in 2015 (Eshelman and Bruce 2015),²² bicycling is relatively rare means of taking a trip. Regardless of the measure used, statistics say that contemporary Americans overwhelmingly favor driving a car to riding a bike as their primary means of everyday embodied mobility. Clearly, if everyday embodied mobility was strictly about rational actors seeking to minimize costs and maximize value, bicycling would be much more popular.

Normed

However, I find these statistics unsurprising given that in the United States, bicycling is not "normed", or well institutionalized. The structural marginality of bicycling is evidenced by measures such as the proportion of city, state and federal transportation budgets spent on bicycling, the extent of bicycle-oriented transportation infrastructure, the nature of roadway regulations devoted to its ordering, and prerequisites for bicycling on roadways. For example, the City of Boulder, Colorado, renowned for its bicycling infrastructure (City of Boulder 2012),²³ has 305 miles of motorized roadways, yet a mere 38 miles of it includes bike lanes (12% of total). And while 58 miles of non-motorized, multi-use pathways is relatively remarkable, it represents only 19% of Boulder's roadway total (Winfree 2012). Between 1990 and 2009, the majority (58%) of Boulder's transportation budget went to roadways and motorized transportation, while only 17% went to bicycling projects (Henao et al. 2015).²⁴ Although Boulder's bicycling infrastructure expenditures are modest compared to roadway spending, they are well above the national average. Overall, U.S. states spend only 1.6% of their federal transportation funds on bicycling and

walking, a mere \$2.17 per capita (Milne and Melin 2014).²⁵ This statistic in-and-of-itself reveals bicycling's marginality within the transportation field. Bicycling is routinely combined with pedestrian issues, and typically referred to as "bike-ped", even though most bicycling scholars, as well as everyday bike riders and pedestrians recognize crucial differences and conflicts between the modes (Vivanco 2013:10). While Colorado law has several behavioral expectations of bike riders (though far fewer than for motorists), municipal laws vary considerably, and institutionalized prerequisites for bicycling on public roadways are practically non-existent. Unlike the registrations, licenses, inspections, and tests of competence required for cars and their drivers, no similar requirements exist for bikes and the people who ride them. Tellingly, the term "normal" is used throughout Colorado roadway regulations to describe roadway users other than "...bicycle, animal rider, animal-drawn conveyance, or other class or kind of nonmotorized vehicle" (CDOT 2010).²⁶ Literally, hyperautomobility is built into the infrastructure of our communities, instantiated in our roadway norms, and woven into the fabric of our everyday lives.

Normative

Furthermore, bicycling and people who ride bikes are not culturally normative in the United States.²⁷ Research reveals that bicycling frequently is thought to be "scary," "dangerous," "difficult," and "serious business" (Daley and Rissel 2011; Horton 2007). Thus, people who ride bikes are thought to be (at best) "bad-ass", "hard-core", and zealous "eco-warriors", or (at worst) downright "strange", "abnormal", and even "a fucking waste of space!" (Aldred and Jungnickel 2010; Aldred 2013; Basford et al. 2002; Fincham 2007a; Horton 2006; Horton 2007; Pooley et al. 2013; Wilson 2010). In the news and

entertainment media, as well as in official, public and causal discourse, bicycling, particularly as alternative to driving, is frequently belittled as inconvenient, inefficient and dangerous, while those who ride are stereotyped as poor, disabled, legally prohibited from driving, and associated with random deviant others such as Pee Wee Herman or Andy Stitzer, the 40-Year-Old Virgin (Furness 2010).

Unlike driving a car, to which so many are dedicated to and/or dependent on, bicycling must be incentivized and promoted, and those who ride cajoled and praised. Efforts such as Bike to Work Day, dedicated bike lanes, and professional bicycling advocates paradoxically speak to the non-normative status of bicycling. Like Black History Month and departments of Women's Studies, they are institutional consolation prizes for marginalized groups and lifestyles. Even when framed positively, enthusiastic bicycling, especially as an alternative to driving, represents over-conformity to social norms such as being "green", "healthy", and "fun" and thus constitutes a form of "positive deviance" (Ben-Yehuda 1990; Goode 1991; Harrison 2008; Heckert and Heckert 2004). For some people, in some places, riding for particular purposes, bicycling may be "good" and "right", but like child prodigies and professional athletes (Bryant 2014; Hughes et al. 1991), in no sense of the word is it widely regarded as "normal".

This is all to say, "being a bicyclist" is not easy. Preliminary and extant research make it clear that a number of social psychological and interactional challenges, including role conflicts, antagonistic interactions, and the stigma of riding a bike must be avoided, overcome, or managed if one is to successfully ride a bike as an alternative to driving a car.²⁹ Ultimately, these challenges limit the number of people who have what it takes to be a bicyclist and thereby reinforcing the vicious cycle where by bicycling as an alternative

to driving is not normal and people who ride bikes deviant. While many of the barriers to bicycling are practical, logistical, and/or physical in nature, as a matter of perspective, here I focus on the social psychological and interactional aspects.

PROJECT GOALS AND GUIDING QUESTIONS

Being an inductive effort, I did not initiate this project with a set of prescribed research questions. Rather, I approached the topic of bicycling as a dedicated practitioner of grounded theory might (Charmaz 2001, 2006; Glaser and Strauss 1967),³⁰ with little more than a curiosity about a familiar and readily observable phenomenon. Over the course of several years and in the course of writing this dissertation, the following topics, questions, and presumptions have evolved, and as I will discuss in the conclusion, are still subject to revision. As Maxwell (2013) advises, "a good set of research questions will evolve, over time, after you have considered and reconsidered your broad research theme" (P.83).

My interest in this project starts with the talk of "bicyclists" that is commonly found in the news, entertainment, and social media, as well as in official reports and every day discourse, even among professional planners, bicycling advocates, and scholars. Preliminary and existing research leads me to question whether an essential or even distinctive "bicyclist" identity and/or self-conception exists. In a qualitative/interpretive, and critical (i.e. constructionist) sense, I wonder, just who, or perhaps what, is a bicyclist? Beyond riding a bike, what makes someone a bicyclist in the eyes of others and/or themselves? Is there more to being a bicyclist than riding a bike – perhaps an aspect that involves one's social identities and self-conceptions? And if so, what are the social-psychological and interactional characteristics and features that distinguish "bicyclists" from others such as those who reluctantly ride a bike, and those who ride with little or no

awareness or concern for the ways their riding reflects and reproduces their sociocultural milieu? And insomuch as nobody is born a bicyclist, there must exist a process of "becoming a bicyclist" that can be empirically observed and theoretically framed. That is, what are the steps and stages, or specific experiences necessary to become a bicyclist?

Furthermore, I wonder, what is the effect of the social psychological and interactional challenges (which seem to be all but ubiquitous) of riding a bike? In what ways (if at all) do role conflicts, antagonistic interactions, and the potential stigma of riding a bike, especially as an alternative to driving a car, effect the practice, performance and experience of being a bicyclist? Finally, my critical affinities call for a consideration of the ways in which the institution of embodied mobility and the social psychological and interactional challenges of being a bicyclist reflects and reproduces broader social inequalities, particularly given the all-but-universal condition of hyperautomobility. How does the "stage" of the natural and built environments, as well as, the "scripts and props" of the social environments and cultural milieu come into play, especially when the "stars of the show" are drivers and their cars? How might bicycling advocacy efforts, some of which are colorblind and universalist (Guthman 2011; Lugo 2015), narrow the range of "normal" bicycling and bicyclists, and contribute to the social psychological and interactional challenges of riding a bike, for some riders more than others? And I wonder, what part (if any) does privilege and power play in being a bicyclist? How, and for whom, is privilege and power in other fields (Bourdieu 1984) converted into the capacity to avoid the conflict, overcome the antagonism and manage the stigma of riding a bike as an alternative to driving a car?

In exploring these topics and questions, I respond to the Advocate's Question and offer a uniquely qualitative/interpretive response, one that highlights social psychological and interactional aspects of being a bicyclist. In such, I intended this project to contribute to the sociological understanding of the fundamental and ubiquitous, yet relatively understudied, aspect of social reality, everyday embodied mobility. More specifically, in this dissertation I make three contributions that inform responses to the Advocate's Question and thus the mobilities paradigm. First, I outline a "neo-Goffmanian" theoretical framework that facilitates the effort to understand the role of agency in our everyday embodied mobilities at the same time as the effects of the physical and social structures that shape our everyday embodied mobilities. Second, I present a "stagers and scenes" approach to understanding bicycling and other modes of everyday embodied mobility that serves as the theoretical underpinnings of a new, more interactionist approach to bicycle scholarship, planning, and advocacy, one that complements the usual positivist efforts to identify the predictors, causes, and barriers to bicycling. Third, I offer a typology of people who ride bikes that help bicycling scholars, planners, and advocates identify different types of people who ride bikes, and distinguish between those whose riding practices address the Advocate's Question and those who do not.

OVERVIEW OF CHAPTERS

After this introduction, in Chapter 2 I discuss my data collection and analysis methods, as well as reflect on my positionality in the context of the project. In Chapter 3, I discuss the concepts and theories through which I filter my observations and frame the ideas presented.

Chapters 4, 5 and 6 are my "data chapters". Here I present the results of my analysis of the data collected. In articulating his staging mobilities framework, Danish urban designer and sociologist Ole Jensen reminds us that everyday embodied mobilities, bicycling included, are institutionally planned and funded, designed and engineered, maintained and managed, regulated and policed by authorities, as well as, depicted in and facilitated by the news, entertainment, and social media, plus governed by informal social norms – that is, "staged from above". In Chapter 4, I use Ole Jensen's (2013) staging mobilities framework, a clear homage to Erving Goffman's (1959) dramaturgical metaphor, to "set the stage" for a qualitative/interpretive exploration of bicycling and the people who ride bikes in Boulder and Denver by analyzing area "stagers" and the "stages" they afford people who ride bikes.

Building on the discussion of "staging from above" in Chapter 4, in Chapters 5 and 6 I present the results of my effort to operationalize the "staging from below" aspects of Jensen's staging mobilities framework as they pertain to bicycling by asking the question "who is a bicyclist?" I present the answers to my question in the form of a typology of ideal-type Riders that consists of six types of people who ride bikes (PWRB), distinguished from one another by seven themes of practice and performance. More specifically, in Chapter 5 I start with a brief review of the existing literature involving typologies of bike riders, and then present the first four of seven themes arising from my inductive analysis of observational data. Themes one through four focus on the practices – i.e. the directly observable behaviors, routines, bikes, gear, and skills – used by PWRB. In Chapter 6, I present themes five through seven, and continue refining my typology of Riders by exploring the social psychological and interactional aspects of Riders embodied

performances: including the various bicycling scenes in which different types of Riders perform; the meaning of bicycling and PWRB, and a rider's subsequent motivation for riding; and finally, the boundary work differ types of PWRB perform to distinguish their "riderselves" from other types of PWRB.

Finally, I wrap up the dissertation in Chapter 7 by "connecting the dots" (summarizing findings across chapters), highlighting contributions, acknowledging limitations, and discussing the next steps in my everyday embodied mobilities research agenda.

CHAPTER 2: METHODS

The empirical foundations of this dissertation were laid using multiple qualitative methods, including auto-ethnography; participant observation and fieldnotes; content analysis; opportunistic, *in situ* discussions; and most importantly, in-depth qualitative interviews. Before specifying the methods used to collect and analyze the fieldwork and interview data, I will discuss relevant issues of my positionality and situate this dissertation within a larger research agenda.

POSITIONALITY

All my life I have ridden a bike – first for fun and freedom, then for competition and career. As a kid, I rode my bike to school and everywhere else that I could.³¹ I competed in BMX races, and worked as a bike riding "paper boy" until I learned to drive. Although after learning to drive I stopped riding for transport, I continued to ride for fun and competition. As an adult, I have worked as a bicycling tour quide, instructor, and messenger. Presently, I ride for recreation, exercise, and as my primary means of local transportation. However, it was not until the summer of 2008 that I "made the everyday strange" (Sternheimer 2009) and looked at bicycling through the lens of sociology. Initially, I approached the topic of bicycling as a dedicated practitioner of grounded theory might do (Charmaz 2001, 2006: Glaser and Strauss 1967), with little more than a curiosity about a readily observable phenomenon – I mean, bikes and Boulder, need I say more? With many opportunities for local fieldwork, and a lifetime of riding experience, the allure of an opportunistic research role was too much to resist. Opportunistic research refers to situations in which the researcher is involved in an activity or belong to a group that they come to study. Instead of having to bring a "pretended self" to the research setting, opportunistic researchers

"create the space and character for their research role to emerge," (Adler and Adler 1987:69), and examine the familiar setting from a different perspective.

Yet, this newfound bicycling-sociologist identity is not trouble-free. Over the course of this project, it has become clear that most field contacts and acquaintances identify me as an enthusiastic bicyclist, if not full-on advocate or activist. And while I most certainly enjoy bicycling, do so regularly, and would like to see it become safer and easier, like many of my research participants, I find myself resisting the label of bicycling advocate/activist. I have observed that I frequently attempt to "cover" or conceal (Goffman 1959) my enthusiasm for bicycling unless in the company of dedicated advocates/activists.³²

More so, it is difficult, if possible at all, to distinguish my identity as a social researcher from that of a bicyclist, as they have emerged together. For example, while for several years I have volunteered for groups and organizations that advocate for bicycling and other alternatives to cars, I have done so for the opportunity to engage in fieldwork, more than out of a desire to promote bicycling per se. Similarly, I have participated in several unsanctioned, activist events such as "Critical Mass" rides (in Boulder and Denver) and the 2009 Boulder "World Naked Bike Ride." Like my volunteer roles, I did so primarily as a researcher. Before beginning this project, I had never considered that "being a bicyclist" might entail any more than riding a bike. To my presociological self, being a bicyclist was about what I did, not who I was.

I mention this because, due to symbols and signs such as arriving by bike,³⁴ my outerwear and backpack, as well as my academic interest in bicycling, field contacts and interview participants often assume that I am a bicycling advocate and/or activist. And

given the contested character of bicycling, it is unlikely that research participants see me as a "neutral" observer. With an awareness of how others are likely to perceive me, and in anticipation of questions and assumptions about my bicyclist identity, I have shared the bicycling biography I've just recounted when asked, something that only nine research participants have done. Being a bicyclist has not seemed to inhibit others, drivers and riders alike, from expressing negative views about other roadway users, including "fuckin' bikers" (just like me?). More so, my advocate/activist deeds and identities have thus far proven to be an indispensable means of being a bicyclist, and an invaluable source of observations and research participants.

Finally, my positionality is relevant because of a point of contention between my personal meaning and aesthetic of bicycling and my empirically findings and subsequent implications. Through auto-ethnographic reflection, I have come to realize that a large part of the reason I ride a bike has to do with the radical mystique of riding as alternative to driving. This is especially true of riding for work, as a bicycle messenger in particular. As a generally conventional person, riding serves as a way of realizing an "alternative" lifestyle (at least partially) and adds an air of distinction to an otherwise prosaic identity, a motivation for bicycling that I share with several of my interview participants. This means that, should bicycling advocates succeed in making riding as alternative to driving commonplace, riding would cease to fulfill this social-psychological function for me.

In the next few sections, I provide an overview of the methods used, and situate this dissertation in a boarder research agenda, by discussing preliminary, concurrent, and ongoing research on bicycling and people who ride bikes.

PRELIMINARY RESEARCH

Preliminary research consists of my earliest efforts, both traditional and auto ethnographic, to systematically explore the experience of riding a bike as an alternative to driving a car. In the summer of 2009, I sold my car, and pledged to ride my bike to the extent practically possible. Despite being a life-long rider, prior to conceiving of this project, it had never occurred to me that there might be a "sociology of bicycling," and had absolutely no knowledge of the scholarly literature on the topic. Though not a dedicated practitioner of grounded theory (Charmaz 2001, 2006; Glaser and Strauss 1967), I initiated my research on bicycling as one might. Unencumbered by a conceptual framework, hypothesis, or detailed research plan, I was able to observe and write about my struggles and success with riding as an alternative to driving with a "beginners mind" (McGrane 1994). Given such, my earliest efforts were heavily auto-ethnographic, and formatted as a "trip journal" (Fincham et al. 2009; Letherby 2010). Initially, I created an entry for every trip I made, but quickly came to focus only on remarkable successes, persistently onerous struggles, and out-of-the-ordinary events.³⁶

After a few months, preliminary patterns and themes began to arise from my trip journal, and my fieldwork efforts became progressively less auto-ethnographic. I refocused my observations and writing on the culture and politics of bicycling as an alternative to driving, especially in the Colorado Front Range region. More specifically, I began to systematically read and analyze local news and social media,³⁷ deliberately participate in a variety of bicycling festivities³⁸ and activist protests,³⁹ as well as serve in a number of volunteer advocate roles.⁴⁰ I also methodically observed local government meetings, such as those of the Transportation Advisory Board of the City of Boulder.⁴¹ I

captured observations in the field, including conversations with and between others, in a variety of ways including handwritten notes, taking photographs, and making audio and/or video recordings.

In the spring and summer of 2011, I conducted a content analysis of local and national media coverage of conflicts involving bicycling and people who ride, both on and off the roadway. Supplemented with insights gained from early ethnographic efforts, this content analysis informed three scholarly presentations (Johnson 2011, 2012a, 2012b) in which I worked out the conceptualization and operationalization of key concepts. Moreover, while these were initial and modest efforts to explore bicycling using a qualitative/interpretivist approach, combined with my lifelong bicycling experience, they proved invaluable for locating and recruiting participants, gaining entrée, conducting interviews, and formulating my analysis.

CONCURRENT RESEARCH

In the spring of 2013, I initiated the "Scofflaw Bicycling Survey" project. In collaboration with colleagues, 42 we created a survey designed to recruit participants and record data through the Internet using popular news and social media platforms. Focused on understanding the interactional difficulties of riding a bike as an alternative to driving, the survey measured several facets of riders' attitudes, behaviors and experiences, with special attention paid to riders' comfort and conflict (or lack thereof) with social norms, roadway regulations, and other roadway users. The survey featured several hypothetical roadway scenarios that bike riders are likely to encounter, and asked them to share their intended behavioral response, level of comfort, and reason(s) for their envisioned responses. The effort resulted in three co-authored journal articles and eight scholarly

presentations, as well as over 30 stories on the study by popular media outlets.⁴³ While conceptually related to and concurrent with the design of this project, I consider the "Scofflaw Bicycling Survey" a separate effort, not a part of this dissertation. Accordingly, I will reference insight gained by way of the project as I would any other extant findings.

DISSERTATION RESEARCH

In addition to the aforementioned preliminary and concurrent research, this dissertation is informed by the voices of over 45 people who ride bikes heard through in situ discussions and in-depth, qualitative interviews, as well as, interviews with ten local and national transportation experts, and the analysis of publicly available official documents and those obtained by leveraging research relationships. Using a variety of data sources and collection methods has generated a rich diversity of information and enabled me to compare participants' accounts with observable behaviors, which according to Warren and Karner (2010), provides broader understandings and thicker descriptions than a single method can offer. And while my fieldwork and participant observation have proven to be invaluable sources of information, it is my conversations with research participants that have come to constitute the main source of data for this dissertation. The voices of bicycling experts and bike riders themselves have provided a glimpse into my research participants' bicycling experiences, behaviors, accounts, motives, and opinions from their perspective (Rubin and Rubin 2012). Such a level of depth was important for addressing the qualitative/interpretive sorts of questions that I wanted to address. As noted, I had engaged in preliminary researched for several years before beginning to interview people for this dissertation. For the most part, my fieldwork remained largely unchanged after beginning the interviews except to become progressively focused on unofficial events,

obscure scenes, and difficult-to-recruit participants. For this reason, the following summary of my data collection methods focuses on my research participant recruitment, my conversations with them, and post-conversation fieldnotes.

My data collection efforts, those that involve conversations with other riders in particular, were guided by the interpretivist notion that the people I study are not mere "objects," but active participants in the research process. I assume that participants are authorities on their own lives, and that the participant-researcher relationship should be egalitarian in nature. The image of the "participant-as-storyteller" (Gubrium and Holstein 2002; Holstein and Gubrium 1995), as well as, Kvale's "traveler" (vs. miner) metaphor (Kvale 2008; Kvale and Brinkmann 2009), serve as broad methodological guides for my conversations with them. The interpretivist perspective rejects the view of participants as repositories of beliefs and experiences waiting to be extracted by an "expert" interviewer (Kvale's "miner" metaphor). Rather, interviews and in situ discussions with research participants are collaborative, meaning-making efforts that allow researchers a glimpse of "reality" from the participant's point of view (Kvale and Brinkman 2009). The interpretivist approach presumes an active role for research participants as stories are assembled responsively and continuously throughout the conversation. By engaging with participants as storytellers, I am part of the audience and am forced to interact more reflexively than I would if I were simply extracting answers to questions. In the following paragraphs, I further specify the interpretivist methods used in the collection of data in terms of participant recruitment, interviews and in situ discussions, and post conversation fieldnotes.

Recruitment

As noted, prior to planning this dissertation, I had engaged in several years of bicycling-related research. I used the knowledge gained to locate and recruit participants in various ways. Though often opportunistic, most recruitment efforts were systematic and made use of IRB-approved recruitment flyers that described, in non-technical terms, the purpose of my interviews, eligibility criteria, and practical matters such as potential interview locations and length. Typically, this meant strategically distributing recruitment fliers at bicycling events and infrastructural locations such as bike racks, bike shops, and bus stops.

Since bicycling is a relatively common practice in Boulder and Denver,⁴⁴ I did not find the recruitment of participants in general to be difficult. However, in striving for a theoretically-informed distribution of participants (Corbin and Strauss 2008; Glaser and Strauss 1967), I found I it necessary to use a simplified version of Watters and Biernacki's (1989) "targeted sampling strategy",⁴⁵ in which I recruited particular types of participants to increase heterogeneity along three dimensions shown to influence bicycling attitudes, behaviors, and experiences. These dimensions include (1) their home community (where they ride), (2) the purpose, meaning, and manner of their riding (for what, why, and how they ride), and (3) key sociodemographic characteristics (who rides). In the following paragraphs, I elaborate on these dimensions and detail the steps taken to increase heterogeneity along these lines.

While most of my research participants are residents of the City of Boulder or Boulder County who work, attend school, shop, and/or otherwise associate primarily in Boulder, I also recruited participants from Denver and its environs. Together Boulder and

Denver serve as excellent research settings because in both cities bicycling is neither a taken-for-granted feature of life, nor such an anomaly as to completely be invisible. In other words, in both locations, bicycling, especially as an alternative driving a car, is discussed and debated, advocated for and against, embraced and resisted. In Boulder and Denver, bicycling as an alternative to driving is neither uncritically accepted, nor never considered, and just about everyone has beliefs about, and experiences with, bicycling and people who ride bikes. In neither sense are Boulder and Denver area residents the proverbial fish that didn't discover water. More so, important differences in the built environment, political, and sociocultural milieus of Boulder and Denver have provided a diversity of bicycling experiences among research participants that would be impossible to achieve if recruited from just one community. I will discuss these differences in detail in Chapter 4.

Insomuch as extant research has revealed important distinctions, and even antagonism, between individuals who ride bikes for different purposes and in dissimilar ways (e.g. Aldred 2013; Skinner and Rosen 2007), I have strived to recruit participants with a high degree of variability in the purpose, meaning, and manner of their riding. But because it is difficult to identify these differences before conducting the interview, certain types of riders were more difficult to recruit than others. Some riders, such as those who ride involuntarily, do not participate in institutionalized transportation politics, belong to small demographic categories, or simply do not see themselves as "Bicyclists" have been described by transportation scholars as being "invisible" (Koeppel 2006). In many ways (though not precisely) invisible riders fit the description of a "hidden population" (Watters and Biernacki 1989), and thus their inclusion in my research created recruitment and

observation obstacles that necessitated the use of "opportunistic" recruitment techniques to locate and recruit. Examples of opportunistic recruitment techniques include the "intercept provisioning" of recruitment flyers, explicit appeals for those who fit the description of invisible riders over social media, as well as "snowball sampling" (Berg 2001; Biernacki and Waldorf 1981). In extreme cases, I have even eavesdropped on conversations occurring in public places (e.g. parks, festivals, restaurants, and bars) and joined groups discussing riding (essentially "crashing the party"), especially when ostensibly invisible riders were present. In all, I believe that my efforts have been reasonably successful and exceptionally worthwhile, insomuch as they add depth and diversity to the discussion of the types of riders in Chapters 5 and 6, as well as, important distinctions in the social-psychological and interactional difficulties different types of riders' experience and make invisible riders visible in my dissertation.

Existing research suggests that several sociodemographic characteristics, including a rider's sex and gender, race and ethnicity, social class, ability, age, and family status are statistically associated with variances in frequency, purposes, and practices of riding. Thus, in striving for a heterogeneous representation of participants in terms of such, I have appropriated the principles of "theoretical sampling" (Glaser 1978; Glaser and Strauss 1967) for my recruitment strategies. Yet despite my best intensions, achieving a demographically diverse set of research participants has proven easier proposed than accomplished. Thus, while the demographic diversity of my participants could be greater, the variation in each of the aforementioned demographic variables reasonably reflects the diversity (or lack thereof) of Boulder and Denver area bicyclists.

Finally, to even further broaden my perspective and guard against the potential biases inherent in my recruitment efforts, I interviewed several local transportation officials and professional bicycling advocates identified in the course of my field research. As "informants" (Spradley 1979), these individuals are collectively knowledgeable of a full spectrum of riders and serve as a point of triangulation in that we would discuss methods, observations, findings and tentative conclusions.. Informants provided unique insights that were then used in recruitment efforts, and to inform discussions and interviews with non-expert participants.

Research Participants

As a result of my fieldwork and recruitment efforts, I have I observed, interviewed, and/or had *in situ* discussions about bicycling and people who ride bikes with 64 specific people. I sort these individuals into four mutually exclusive groups based on the circumstance by which they came to be a part of my data. In the paragraphs that follow, I will discuss the groups according to my level of involvement in the discussion.

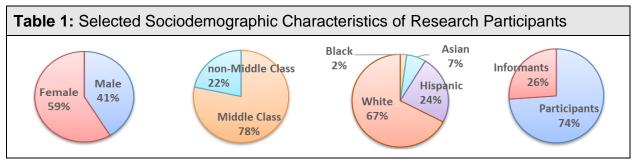
First, in the course of my fieldwork, I participated in dozens of public meetings and other gatherings in which I encountered individuals sharing their (sometimes disputed) expertise on bicycling and people who ride bikes. While I observed several dozen bicycling experts, the comments of 11 specific individuals made their way into my analysis. All of these individuals are white, middle-class, middle-aged professionals, as well as widely regarded as transportation experts and/or officials. Four of the eleven are women, and the remaining seven are men. My second group of research participants includes seven individuals encountered in the field, and in situations that were emotionally charged and/or antagonistic. Consequently, these individuals are not known by name but

rather referred to by the situation in I encountered them (e.g. "ticketed rider", "18th St. truck driver", etc.). While in all seven cases words were exchanged regarding bicycling and/or people who ride bikes, the participants' comments were not necessarily made in direct response to questions I posed but rather are better described as unsolicited opinions. These individuals were all white, and range in age from their early to midtwenties to seventy-plus. As far as I know, none were transportation officials or bicycling experts, though based on their comments it would seem as if they consider themselves to be such. The individuals in these first two groups provide important insight into bicycling and people who ride bikes in Boulder and/or Denver, but since I did not recruit these individuals or guide our relatively short conversations, I do not count them among the distinct "voices" that inform my research. Rather I recorded and analyzed these individuals' contributions to my understanding as participant observation fieldnotes.

Together, the third and fourth groups include 46 people with whom I spoke to under circumstance that I consider to be an *interview* or *in situ discussion*. Of the 46, 25 sat for formal interviews in which I was able create audio-recordings and transcripts, as well as complete a demographic questionnaire (group 3). I also conducted discussions with 21 individuals in field situations that did not allow for audio recording and/or complete demographic information to be collected (group 4). For example, on more than one occasion I discussed bicycling and people who ride bikes at length with mutual attendees of a local CBO's "membership appreciation party", and similarly had several very informative discussions with the fellow participants of group rides – situations in which I was able to record a name and directly observable demographic characteristics, but asking for income or other personal information not obviously related to bicycling did not

feel appropriate. Demographic information on these individuals is known through observations, indirect references, and/or inferences. I discuss the interview / in situ discussion distinction further in the next section.

While every one of the 46 people I interviewed or had *in situ* discussions with (groups 3 and 4) were themselves a bike rider, I never intended for them to represent the population of all bike riders in a manner that allows for statistical inference. Contrary to popular stereotypes (Furness 2010; Hoffmann 2016), bicycling is not a strictly white, middle-class, male activity, especially if riding for all purposes and all riding practices are considered (Andersen 2015). Thus as discussed in the previous section, I focused my recruitment efforts on ensuring that the under-represented voices of historically invisible riders (women, non-white, non-middle-class) were represented, an effort at which I was generally successful.



Though most studies find that men ride more than women, especially as alternative to driving, 27 of my 46 interview participants and *in situ* discussants of are female. While middle-income people are the least likely class to ride as an alternative to driving (Andersen 2015; McKenzie 2014), they are the most visible class of rider due to their riding practices, ability and willingness to participate in transportation research and politics, and class-based, social affinities with transportation planners and bicycling advocates (Andersen 2015; Koeppel 2006: Golub, Hoffmann, Lugo, and Sandoval 2016).

And though most (36 of 46) of my interviewees and discussants are middle class, it is likely due to their participation in organized bicycling activities where I frequently recruited, and willingness to sit for an interview (100% of group 3 are middle-class riders). However, all 10 non-middle-class discussants (almost half of group 4) were very poor, working poor, and/or immigrants adding important diversity to the beliefs and experiences of my participants. They are also hard-won participants whose voices would be absent from this study if not for the targeted sampling strategies (Watters and Biernacki 1989) discussed in the preceding section. The racial-ethnic composition of my interview and discussion participants falls somewhere in between that of Boulder's and Denver's general population, being comprised of fewer white people and more people of color than Boulder (78% white-only), but less so than Denver (53% white-only). Additionally, four of the 46 are not U.S. citizens, and six are immigrants, a dimension of diversity that provides interesting cross-cultural insights. Finally, I classify 12 of the 46 research participants as bicycling experts or transportation officials ("informants"). Rather than discussing their riding practices, my interviews with informants focused on bicycling and people who ride bikes in general. Of the 12 informants, six are women, three are people of color, all are middle class, and all were formally interviewed (group 4).

Interviews and In Situ Discussions

For the sake of analysis, I distinguish between two types of conversations with research participants: (1) in-depth, qualitative interviews, and (2) *in situ* discussions. Both types of conversations are dialogical moments, an exchange of ideas and a sharing of experiences that occurred "face to face" and synchronously.⁴⁶ I use the term "interview" to refer to semi-structured, in-depth, interactive discussions (Fontana and Frey 1994;

Kvale and Brinkmann 2009; Rubin and Rubin 2012). Practically speaking, interviews are pre-arranged discussions, in which my researcher status is known, consent is obtained in writing, and for which I prepare topics and question in advance. Interviews differ from *in situ* discussion that occur with riders as I encounter them "on a ride", "at the meeting", or otherwise as a part of my fieldwork activities. Practically speaking, *in situ* discussions occur opportunistically, thus my researcher status was not always revealed, consent is obtained verbally, and I do not use an interview question guide.⁴⁷

Holstein and Gubrium (1995) suggest that the meeting of the researcher and participant is an important moment, in that it orients participants to the tone of the conversation. Considering such, I took several steps to create a favorable "definition of the situation" (Goffman 1959; Thomas and Thomas 1928) and kept conversations casual (at least from the participant's perspective) so that the shared experience of riding a bike predominated and the formalities of introductions and consent procedures quickly fade away. For example, when interviewing, I liked to start by asking participants how they got to the interview. If they rode, I ask how the ride was. If not, I ask why. I have found that from this concrete starting point, the more abstract aspects of desired information arise "naturalistically" and provide a glimpse of an instance of mobilities *in situ* (Jensen 2013).

Moreover, I have strived to guide conversations with participants without being overly restrictive or leading. I found that this was relatively easy when engaging in short, focused discussions that occurred *in situ*. However, interviews proved to be more difficult, and to ensure a casual, yet complete, conversation additional steps were necessary. Thus, I used a loosely organized, and frequently revised, interview question guide

comprised of 5 to 7 general topics and a list of various potential probing and follow-up questions (Rubin and Rubin 2012, Chapters 9 and 10) derived from preliminary and existing research, my participant observation efforts, and preceding conversations. My interview question guide had built-in flexibility, enabling me to guide the interview in various directions depending on the participant's interests and topics raised during the interview, as well as, dive deeper into topics to ensure comprehensiveness. Additionally, I made audio recordings of interviews to avoid the need to take notes, and I tracked the comprehensiveness of participants' narratives non-obtrusively by marking off topics and "jotting" (Emerson, Fretz and Shaw 2011) on a printed copy of the interview question guide. I found that simple marks and jottings did not disrupt the naturalness the interview yet allowed me to confirm that the desired topics were covered, and redundant questions avoided.

Post Conversation Fieldnotes

Upon the completion of each interview, I listened to the audio recording and expanded on interview jottings to create "interview fieldnotes" (Miles and Huberman 1994).⁵⁰ Interview fieldnotes focused on the interview setting, the appearance, and demeanor of the participant, and other relevant information that an audio recording may not capture. Additionally, I would reconsider research questions, make modifications to the interview question guide, and evaluate the interview overall (Miles and Huberman 1994:51-53; Rubin and Rubin 2012:191).⁵¹ In addition to qualitative interview fieldnotes, I also used an *Excel* spreadsheet and the qualitative analysis software *NVivo* to record and track information quantitatively, including participants' mode frequencies, purposes, preferences, etc., sociodemographic characteristics, as well as, my initial assessment of

participants' place in the "Portland Bicyclist Typology" (Dill and McNeil 2013).⁵² During *in situ* discussions, I did my best to observe and discretely record as much information as possible regarding the participant(s) and the context of conversation. But because *in situ* discussions were impromptu, limited in scope, and not recorded in the moment, such information is limited compared to that recorded in interviews. On completion of an *in situ* discussion, I would immediately write down as much of the discussion as I could recall, including a description of the context in which it occurred, while avoiding (for the time being) my making analytical judgements.

As is customary in qualitative research, my project's "saturation point" (Glaser and Strauss 1967:120-145)⁵³ was determined through a reiterative process of preliminary analysis and progressively focused data collection (Rubin and Rubin 2012; Saldana 2013). Once the collection of new data does not shed any further light on the issue under investigation, I knew it was time to wrap up data collection efforts and focus on the final data analysis efforts.

Data analysis

I consider data analysis to begin with the moment that a fieldnote is digitized,⁵⁴ and when an interview is transcribed. Depending on the degree of completeness, I analyzed fieldnotes from *in situ* discussions as observational fieldnotes or as interviews. *In situ* discussions for which I had sufficient data were analyzed as interviews and entered into *NVivo* as transcripts. Otherwise, I treated *in situ* discussions as observational fieldnotes in the analytic process. For interviews, I transcribed my interviews by first creating a rough draft in which I disregard spelling and typos and skip inaudible portions of the recording. Afterward, I listen to the interview again and make corrections, carefully re-listen to

inaudible portions (using some software tricks if necessary), insert time markers, and format the document to distinguish between speakers. It was at this point that I also created an entry in the aforementioned *Excel* spreadsheet and *NVivo* case classification sheet.

I analyzed my fieldnotes and interview transcripts in roughly three overlapping steps that started with formatting and adding artifacts to NVivo as "internal sources", and then proceed in a manner approximately the same as described by Rubin and Rubin 2012 and Saldana 2013: (1) summary, (2) 1st stage coding, and (3) 2nd stage coding. As suggested by Rubin and Rubin (2012:190-192), I start my analysis by creating a fieldnote or interview "summary" at the same time as creating the final draft of each fieldnote / transcript or other artifact. Rubin and Rubin (2012) suggest that interview summaries include initial memos, a list of "notable quotes", and practical details about the observation / interview that in many ways make it an extension of my "interview fieldnotes" 55. Next is coding. Again, as suggested by Rubin and Rubin (2012), and further specified by Saldana (2013), I coded in two reiterative steps. First stage coding consisted of "defining, finding, and marking excerpts that have relevant concepts, themes, events, examples, names, places or dates" (Rubin and Rubin 2012:190) within each interview transcript and fieldnotes. Second stage coding involved working with codes across interviews and fieldnotes to generate, categorize and prioritize codes, as well as, abstract, integrate, and synthesize concepts and themes to generate theory (Rubin and Rubin 2012: 58; Saldana 2013: 58, 188). Finally, I used memos (Glaser 1978:83; Miles and Huberman 1994:72) throughout the analysis process to tie together specific pieces of data into themes, and to indicate that they were instances of a general concept.

In thinking specifically about inductive analysis, I find myself frequently returning to the insights of Stolte et al.'s "sociological miniaturism" (Stolte, Alan and Cook 2001) along with Michael Burawoy's (1998) "extended case method" as conceptual guides. I use the term "induction" to denote conceptual movement from the observation of microlevel / concrete phenomenon to knowledge of macrolevel / abstract phenomena. I see my inductive analysis is a counter-balance to the deductive approach of hypothesis testing common in the positivist approaches favored by transportation planners and engineers. "The extended case method applies reflexive science to ethnography in order to extract the general from the unique, to move from the "micro" to the "macro", and to connect the present to the past in anticipation of the future, all by building on preexisting theory" (Burawoy 1998:5). Thus, I am presuming (in Stolte et al.'s terms) that analytic induction allows researchers to see social reality in terms of the core concepts of (1) transcendence, (2) representation, and (3) generalizability (Stolte, Alan and Cook 2001:409). To elaborate, I assume that (1) social processes transcend levels of analysis. Processes observed at the microlevel of analysis (i.e. at the level of identity and interaction) can be presumed to operate at the macrolevel (i.e. the institutional). I also assume that (2) the behavior of individuals reflects and reproduces "over-individual" (Jensen 2013) social phenomena. Though neither consistently true, nor necessary for social interaction, this "behavioral synecdoche is routine and is grounded in commonsense interpretations" (Stolte, Alan and Cook 2001:409). Thus, I assume that (3) social processes can meaningfully be generalized from micro to macrolevel phenomena. Though my study focuses on particular people in particular settings, the details of which are idiosyncratic, I assume that the findings and conclusions apply to a world beyond the

setting. Irvine (2000) concurs when she writes, "Some readers might claim that the observations made within such a unique setting cannot be generalized beyond it. I do not want to generalize far beyond CoDA about the substance of the self (although I suspect that the modernist, therapeutic self is indeed quite prevalent) but I do want to generalize about process" (P.25). The bike riders with whom I spoke, especially here in Boulder and Denver, represent unique concerns, and perhaps extreme examples, but their endeavors can still help us understand the broader experience of embodied mobility and selfhood more generally.

When considering reflexivity, I again return to Burawoy's (1998) image of "reflexive science." In general, reflexivity refers to a mindfulness of one's self, and here I apply the notion of reflexivity to my own mindfulness regarding my role as a researcher rather than the riders I propose to study. This means that will I strive to remain reflexive as the primary effort to bolster the validity of my findings and conclusions (Burawoy 1998). This is not the same as striving to remain "neutral" in the positivistic sense, something I have tried to avoid during this project. As Rubin and Rubin (2012) note, "neutrality is probably not a legitimate goal in qualitative research. For one thing, it is impossible to attain. Even if a neutral role were possible, it is not desirable, because it does not equip the researcher with enough empathy to elicit personal stories or in-depth description" (P.13). In his many discussions of reflexive science, Burawoy (Burawoy et al. 1991; Burawoy 1998; Burawoy et al. 2000; Burawoy 2009) provides the philosophical foundation in which I ground my data analysis methods. He warns that the primary threats to validity for those taking an inductive approach to analysis are what he calls "power effects": "domination, silencing, objectification, and normalization" (Burawoy 1998: 22). He further suggests that remaining reflexive is the best way to counter-act such threats. "Recognizing our own place within the disciplinary field enables us to objectify our relation to those we study, which will make us better scientists" (1998:14).

Along with striving to remain reflexive, I also take additional, practical steps to ensure the validity of my findings and conclusions. First, I triangulate (Rothbauer 2008)⁵⁶ my interview findings with those from my fieldnotes, preliminary research, expert interviews, and Scofflaw Bicycling Survey findings. In addition, I compared my interpretations and their "goodness of fit" to the data by searching for discrepant evidence and negative cases. By examining both supporting and discrepant evidence, I assessed my conclusions making them more robust. As Burawoy explains, "we begin with our favorite theory but seek not confirmations but refutations that inspire us to deepen that theory" (Burawoy 1998:16).

ETHICS

In designing the proposed research, I have taken into consideration the Belmont Report principles of respect for persons, beneficence, and justice. Though I believe that the potential for harm to occur as a result of participating in my research, interviews included, is practically non-existent,⁵⁷ I have nonetheless taken steps to minimize the likelihood of such. Should harm occur, I presume that it would be psychological distress experienced in response to discussing emotionally stressful or physically traumatic events (e.g. crashes, or antagonistic encounters with other roadway users). Thus, while obtaining the participant's consent (written if possible), I verbally highlight that participants can refuse to answer any question, and/or end the interview all together, free from consequences should they choose to. Throughout the interview, I remain sensitive to my participant's

body language, gestures, tone of voice, and other non-verbal indicators of distress. If I perceive such, I will remind the participant of their right to refuse to answer, and/or end the interview. I also attempt to proactively minimize distress by phrasing questions in ways that allow the participant to divulge as many, or as few, embarrassing details as they see fit. Fortunately, these strategies seem to have worked well, as only a single participant refused to answer just one question, and most mention how much they enjoyed the interview, thanking me for asking them to participate!

Though the information collected has practically no potential to cause harm to participants should it become known, I have taken steps to ensure my participants' confidentiality. In jottings, fieldnotes, and memos, I refer to participants using codes rather than names and use pseudonyms when writing reports. More so, audio recordings and electronic copies of transcripts are stored on a password-protected computer and transferred between devices (recorder and computers) via a private, secure network or hardwired connection rather than the Internet. I keep printed copies of transcripts in a private office and locking cabinet, and when finished with the analysis of the data collected, I plan to destroy the audio recordings and transcripts.

LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDY

The primary limitations of the proposed research design are two-fold. First, the proposed project does not include the voices of non-riders, a category of persons that comprises the majority of roadway users. Yet the proposed research fundamentally examines bicycling and people who ride bikes, the social psychological and interactional dimensions of such, issues to which non-riders simply cannot speak. Thus, the non-rider's perspective, while interesting, is not of primary concern here. Nonetheless, future

research should include the perceptions and experiences of non-riders insomuch as they are very likely subject to the same biophysical, social structural, and normative constraints on their embodied mobility and have responded in a different manner. Exploring what non-riders think about bicycling and people who ride bikes would likely add a depth and diversity of perspective not available from interviewing riders alone.⁵⁸ The second matter is one of logistics, time, and energy. As noted, the recruitment of an acceptably heterogeneous group of research participants, "invisible riders" in particular, has proven difficult, and taken up much of the effort that I might have otherwise spent on recruiting non-riders, and organizing focus groups that included riders and non-riders alike.

CHAPTER 3: SETTING THE STAGE

This chapter "sets the stage," both conceptually and situationally (Goffman 1959:1) by detailing the conceptual framework and thus structuring the project. At the most abstract level of thinking, the mobilities paradigm frames this project, while assemblage theory and a "neo-Goffmanian" approach (Randell 2017) further shape and specify the theoretical framework. I begin by outlining the most relevant ideas drawn from the three aforementioned sets of theories, and then conclude with a discussion the way mobilities scholars, myself included, have adapted these ideas for the study of everyday embodied mobilities, most importantly bicycling.

THE MOBILITIES PARADIGM

The mobilities paradigm is an interdisciplinary⁵⁹ approach to understanding the movement of people and products, ideas and information, wastes and wants, messages and more, as well as the *social* causes and consequences of such. More specifically, Urry (2007) enumerates "five interdependent 'mobilities' that produce social life organised across distance" (1) the corporeal movement of people; (2) the physical movement of objects between producers, retailers, and consumers; (3) the imaginative travel effected through the images of places and peoples, (4) virtual travel, often in real time, and, (5) the communicative travel through person to person message" (P.47). The first of these mobilities, the corporal movement of people, what I refer to as "embodied mobility", is of particular importance to this research project. Throughout this dissertation, I use the term *embodied mobility* to summarize the movement of our corporeal selves, our flesh and bones, about in the fulfillment of biological, psychological, and social obligations, and as a key element of many role performances (Urry 2007:14). Embodied mobility occurs at

all levels of analysis. At the microlevel, embodied mobility refers to movement within and between spaces on a scale such as a home, campus, or neighborhood. Mesolevel embodied mobility includes the movement of people between home, work, school, sites of consumption, and various "third places" (Oldenburg 1989) that occurs within and between regional communities. This is what we most often have in mind when we speak of "transportation" and "commuting." At the macrolevel, embodied mobility signifies what many consider to be "travel," "tourism," and "immigration" – the moving of our bodies between home and distant places, both intra- and internationally.

Embodied mobility is an all-but-daily, intensely personal, visceral, and nearly universal human experience – akin to eating, sleeping, and sex. Yet embodied mobilities *per se* is a historically under-studied phenomenon in sociology and the social sciences in general. According to Sheller and Urry (2006), "social science has largely ignored or trivialised the importance of the systematic movements of people for work and family life, for leisure and pleasure, and for politics and protest. The [mobilities] paradigm challenges the ways in which much of social science research has been a-mobile" (P.208).

In reconceptualizing the movement of our bodies, mobilities scholars start with the observation that within the social sciences movement is too often reduced to a dimensionless, geometric line between points A and B. "It is a kind of blank space that stands as an alternative to place, boundedness, foundations, and stability. This space needs examining" (Cresswell 2006:2). They emphasize that this simplistic understanding of embodied mobility severely underestimates its importance to social life, economic productivity, civil society, and political participation. Mobilities scholars also remind us that the absence of embodied mobility, "slowness, stillness, waiting and pauses, are all part

of a wider sensuous geography of movement and dwelling in which human navigation of embodied, kinesthetic and sensory environments are crucial" (Sheller 2011:4). They highlight the ways in which embodied mobility sustains families and friendships; facilitates production and access to economic services, sites of leisure, work, and political participation; and results in, as well as reflects environmental, social, and cultural transformations (Adey et al. 2014). Mobilities scholars situate the autonomous mobility of our bodies "at the center of constellations of power, the creation of identities, and the microgeographies of everyday life" (Cresswell 2011:511). Mobilities scholars seek to bridge the polemic perspectives toward movement common in the social sciences, perspectives in which things are seen as either static and sedentary (as in classical social theory); or as liquid, nomadic, and deterritorialized (as with the works of late-modernity theorists such as Bauman, Beck, and Giddens). Rather than taking an either/or approach, mobility scholars hope to understand "both together" (Bell 2012:5). While mainstream sociologists use the term "mobility" figuratively to represent metaphorical movement up or down socioeconomic hierarchies of wealth, power, and prestige, mobilities scholars (many of whom are sociologists by training) also use the term literally, to denote physical movement through space-time (or the lack thereof). In doing so, the underscore the importance of autonomous embodied mobility for social mobility (Adey 2014:3-4) such as research by Chetty and Hederen (2015) that finds commuting time is the number one predictor of escaping poverty. Instead of conceptualizing trips as being over the instant they begin or as never-ending, mobility scholars attempt to flesh-out the hitherto skeletal conception of "the trip" by exploring the circumstances surrounding, the meaning of, and experiences emerging from it. How are different mobilities involved in making people's

lives meaningful? And how are these mobilities meaningful in and of themselves? How are mobilities inherently uneven and unequal? And how might attending to such questions require different modes of data collection and analysis (Adey et al. 2014)? These are the kinds of questions mobility scholars address.

As an interdisciplinary field, the theoretical and methodological approaches employed by mobilities scholars in addressing these questions vary widely (Sheller 2011:1; Sheller and Urry 2006:208). For example, mobilities scholars draw on the (1) "classical" microsociology of Gorge Simmel and Erving Goffman to focus our attention on the social psychological and interactional dimensions of everyday, embodied mobilities. Mobilities scholars also use (2) Foucauldian notions of genealogies governmentalities, as well as (3) theories of political economy to rethink the performative politics of racial difference, secured borders, the governance of (im)migration, and "the production of normalized mobile subjects" (Sheller 2011:2). Mobilities scholars also take (4) phenomenological approaches to mobilities to "reconsider embodied practices and the production of being-in-motion as a relational affordance between the senses, objects, and kinesthetic accomplishments" (Sheller 2014:4). Mobilities scholars employ (5) assemblage theory to describe in the abstract, complex, contingent, and emergent character of specific, manifest mobilities. And, in a recent ten-year (2006-2016) retrospective, leading mobilities scholars Mimi Sheller and John Urry (2016) summarize the current theoretical situation as (6) "a new configuration of complexity theory, sociotechnical transitions theory, and social practice theory [that] offers a powerful framework for applying mobilities to a wide-range of contemporary [social and environmental problems] such as global climate change, post-automobility transportation planning, infrastructure design, and the incentivizing of social practices" (P.14).

Described in terms of a Kuhnian "paradigm shift", the mobilities paradigm 60 has experienced considerable growth and development toward becoming "normal science" in the past 10 to 15 years (Sheller and Urry 2006; Sheller and Urry 2016). Growing out of the broader "mobilities turn" in the social sciences and humanities (Cresswell 2011:551; Sheller and Urry 2006), the earliest self-aware expositions of a "mobilities paradigm" were published in the early and mid-2000s. Among them is sociologist and "founding father" John Urry's (2001) seminal book Sociology Beyond Societies: Mobilities for the Twenty-First Century, in which he presents a "manifesto for a sociology that examines the diverse mobilities of peoples, objects, images, information and wastes; and of the complex interdependencies between, and social consequences of, these diverse mobilities" (P.1). Subsequently, mobilities scholars have published several paradigm-defining journals and book series, such as the journal *Mobilities*, in its 13th year of publication, and the journal Applied Mobilities that was first published in 2016. Mobilities scholars have also written several textbooks, most notably Mobilities by John Urry (2007), a handbook titled The Routledge Handbook of Mobilities by (Adey et al. 2014), and assembled an imposing 4volume, 1850+ page, compendium of key works in field (Jensen 2015). Additionally, mobilities research centers can now be found around the world, including here in the U.S. at Drexel University, where the Center for Mobilities Research and Policy was instituted in 2010 to complement pre-existing European centers such as the Center for Mobilities Research (CeMoRe) based at the University of Lancaster in the UK.61 And more and

more, on campus one can find academic degrees, programs, tracks, courses, and textbooks dedicated to the teaching and study of mobilities (Sheller and Urry 2016:17).

Also indicative of the mobilities paradigm's growing influence is its impact on "adjacent fields" (Sheller and Urry 2016:14).62 For example, mobilities research now is found regularly in the mainstream disciplinary journals of anthropology, geography, history, and sociology (Sheller and Urry 2016). This is particularly true of geography, where mobilities research has become mainstream and is now being further developed in specialized subfields (Sheller and Urry 2016:16). The mobilities paradigm has also had an impact on the study many of movement in a number of applied-fields. For example, "critical mobilities thinking" (Jensen 2009, 2010b; Sheller 2011) in urban and transport planning is seen in the call to replace the dominant "predict and provide" paradigm with a new attention to the complex interdependencies of multiple mobility systems (Sheller and Urry 2016:13). Mobility scholars also have collaborated with communication scholars to explore the ways people use cell phones and other mobile communication technologies en route, and how their practice impacts their mobilities experiences (Sheller and Urry 2916:16). Public health scholars use mobilities thinking to conceptualize, operationalize, and measure threats to our collective well-being posed by hyperautomobility such as car collisions and pollution, as well as the sedentary lifestyles that hyperautomobility enables. Additionally, the impact of mobilities thinking and methods can be seen in the fields of health and physical education, especially as it pertains to children's mobilities. Prominent mobilities scholar Ole Jensen's influence is clear in the field of architecture and design (Jensen 2013, 2014), including "mobilities in and for artistic practices" (Sheller and Urry 2016:16). Mobilities scholars have also contributed to the fields of social work, social

policy, and disabilities studies, as well as those of tourism and hospitality. And finally, mobilities thinking has proven valuable in understanding issues of security and surveillance, especially as they pertain to borders, immigration and globalization (Sheller and Urry 2016).

While the growth and development of the mobilities paradigm is remarkable, the "revolution" is far from over, and the mobilities paradigm is still not yet "normal science" (Kuhn 1962). In similar Kuhnian terms, Sheller and Urry (2016) remind us that mobilities research centers are generally quite small, and struggle to secure regular funding, especially from traditional, discipline-centric sources such as the National Science Foundation (Sheller and Urry 2016:17). Though growing in number, the aforementioned academic programs are still few and far between and most often offered as a post-graduate track or concentration rather than a degree and taught as a unit in a more discipline-oriented course rather than as the featured topic / perspective. And with perhaps the exception of geography, mobilities thinking and research remains relatively marginalized within the aforementioned disciplines. Given the sociological training and titles of leading mobilities scholars, it is ironic that this is particularly true of American sociology and the American Sociological Association. I intend this project to contribute to the effort to normalize mobilities thinking and research in sociology and beyond.

However, because a detailed accounting of the mobilities paradigm is beyond the scope of this dissertation, in the following sections I further focus the discussion on two particularly relevant conceptual approaches to the study of embodied mobilities and bicycling – assemblage theory and the "neo-Goffmanian" approach of mobilities scholars Jim Conley, Ole Jensen, and Richard Randell.

ASSEMBLAGE THEORY

The notion of an assemblage originates in the work of French philosophers of science Gilles Deleuze and Felix Guattari and is further developed by Manuel DeLanda in *A New Philosophy of Science* (DeLanda 2006b, Deleuze and Guattari 1987). Heavily influenced by science and technology studies (STS), actor-network theory, and the ideas of Bruno Latour (1988, 1993, 2005), many mobilities scholars have embraced the concept of assemblages.

In the most abstract conceptualizations, assemblages are emergent phenomena comprised of highly diverse and contingent elements. Assemblages often (though not always) combine elements that span a number of ontological continua, including the material-ideal divide, the structure-agent gulf, and levels of analysis from micro to macro. Conceptualized broadly, mobilities assemblages include the material elements of nature, the built environment, and technologies that extend the range and speed of our "natural" mobility, as well as non-material elements such as social norms, statuses, organizations and institutions, processes, practices, and meanings. "Everything from shoes and bikes, to mobile phones and motor vehicles, passports and satellites, software code and embedded sensors, are part of the sociotechnical assemblages or human/material hybrids that perform mobile systems and support specific mobility regimes" (Sheller 2011:4). And, as is often the case with emergent phenomena, the exact elements of assemblages and their relationship one to another are empirical matters, best known in situ (Jensen 2013), for no particular causal ordering or primary level of analysis exists among them (Little 2012). Like stellar constellations, assemblages include an imaginative (or at least perceptual) element, and thus only exist per se when observed. In the way that stellar constellations do not necessarily include every celestial body within the field of view, discernment on the part of observer is required, and such is thus a part of the assemblage. Unsurprisingly, assemblages are frequently "traced" and known in ways similar to Foucauldian genealogies (Robbins and Marks 2010; Sheller 2016).

Assemblage theory is prominently seen in the study of embodied mobilities. As noted in Chapter 1, mobilities scholars conceptualize automobility as being much "more than traffic", and "composed of the hybrid assemblage of specific human activities, machines, roads, buildings, signs and cultures of automobility" (Randell 2017:674). Predictably, mobilities scholars also conceptualize the embodied elements of automobility (i.e. humans and other living creatures) as (sub)assemblages. Drivers and their cars, just like riders and their bikes, are theorized to be cyborgs, and machine-human hybrids, the components of which interact in complex, symbiotic ways, and from which emerge distinct features (Beckmann 2004; Dant 2004; Lupton 1999; Randell 2017). "Driving requires and occasions a metaphysical merger, an intertwining of the identities of driver and car that generates a distinctive ontology in the form of a person-thing, a humanized car or alternatively, an automobilized person" (Katz 1999:33). Or as John Urry (2006) puts it

I use 'automobility' here to capture a double-sense. On the one hand, 'auto' refers reflexively to the humanist self, such as the meaning of 'auto' in autobiography or autoerotic. On the other hand, 'auto' refers to objects or machines that possess a capacity for movement, as expressed by automatic, automaton and especially automobile. This double resonance of 'auto' is suggestive of how the car-driver is a 'hybrid' assemblage, not simply of autonomous humans but simultaneously of machines, roads, buildings, signs and entire cultures of mobility (Haraway, 1991; Thrift, 1996: 282–84) (P.18).

Given the pervasiveness of automobility, is it unsurprising that car-driver assemblages have received the bulk of mobilities theorists' attention. However, this does not mean that mobilities scholars have not applied assemblage theory to bicycling and

those who ride. For example, the work of anthropologist Adonia Lugo exemplifies the use of assemblage theory to understand bicycling. Lugo (2013) describes the bike-rider assemblage as a "city-body-machine" that "blends material objects, bodies, and neighborhoods, encompassing the use value of the bicycle as a transport device, the cultural value of bicycling as a material and social practice, and, in a global economic network, the exchange value of the bicycle or bicyclist as an image" (P.14). Similarly, communications scholar Zack Furness (2010) writes of "the assemblages of socioeconomic, material, technological, and ideological power" (P.6) that distinguish all modes of embodied mobility, bicycling included. Likewise, sociologist David Horton (2006b) describes bicycling "as a relatively transparent and understandable technological assemblage, [which] is perceived as 'appropriate technology', in which the user can participate (...), in the assemblage of a distinctive and oppositional lifestyle" (P.45). However, it is anthropologist Luis Vivanco (2013) who most eloquently articulates his vision of the bike-rider assemblage when he writes:

The result is a relationship, even [if] a temporal fusion or assemblage, between human and machine that is distinctive from other vehicles in what it requires, enables and affects. Wind rushing through one's hair, legs pulsating, feelings of vulnerability and fear mixed with exhilaration, a special knowledge of the spatial layout of one's neighborhood – it is not difficult to recognize how riding a bicycle has experiential, sensual, and social repercussions on one's life that are different from driving a car, riding a train, or walking as a pedestrian. In other words, bicycles, like all technologies extend human bodies and capabilities, but they extend our bodies and capabilities in specific ways. The resulting relationship between human and machine is distinctive from any other, enabling and requiring certain things of peoples' bodies and opening them up to certain kinds of interactions with their environments (P.11-12).

What is clear is that bike-rider assemblages are not solely a material or physical phenomenon. As Mikkelsen, Smith and Jensen (2011) note,

The values inscribed into the design and the materiality of the assemblage is as important as bike paths, curbs and wheels. The power issues and the attempts to

enforce certain decisions and marginalize others also becomes part of the 'biking assemblage' as the making of cycling (as most other human practice) became a contested field from the very beginning. Most importantly perhaps is the understanding of how objects and subjects, society and technology, nature and culture cannot be kept separate in this perspective (P.6).

Indeed, the properties of embodied mobilities assemblages – most extensively, *the car-driver* (Dant 2004; Sheller 2004; Taylor 2003; Thrift 2004:49–51; Urry 2006, 22–29), and to a lesser extent, *the bike-rider* (Furness 2010, Horton 2006b, Lugo 2013, Vivanco 2013) – have been thoroughly explored. Mobilities theorists have done an admirable job at specifying the various components of the assemblages, tracing the complex relationships between them, and detailing the social causes and consequences of them.

Though some may see assemblage theory as a postmodern argument for the hopeless complexity of reality, I do not mean to suggest such here. Rather, I am convinced that assemblage theory is the scientific approach that best addresses the philosophical concerns of scientific progressives, and facilitates a post-structuralist, non-representational, anti-reductionist, constructionist approach to conceptualizing, operationalizing, and measuring embodied mobilities, bicycling included.

Neo-Goffmanian Ideas

As one of sociology's most influential thinkers, Erving Goffman amassed a veritable storehouse of terms, concepts, and theories over his 30+ year career. Goffman was a keen observer of the ostensibly ordinary with a steadfast interest in everyday life and the seemingly mundane processes that generate and maintain it. The application of Goffman's ideas to the study of embodied mobilities results in a unique and novel understanding of everyday embodied mobilities, bicycling included. While there is no doubt that Goffman has provided a robust and useful set of terms, concepts, and theories, with only a few exceptions (e.g. Goffman's discussion of street traffic in *Relations in*

Public, 1971), Goffman did not explicitly apply his theories to bicycling, automobility, or embodied mobilities in general. This is unsurprising given that sociologists have long failed to make everyday embodied mobilities "strange" (Garfinkel 1967; McGrane 1994; Sternheimer 2009) or a formal topic of study (Sheller and Urry 2000). Also, Goffman wrote decades before there was a formal "mobilities paradigm" in which to work, as well as in a sociotechnical context where unmediated face-to-face interaction predominated, and hyperautomobility was relatively new and still unquestioned (Randell 2017:665).

Fortunately, Goffman's inattention to embodied mobilities has not stopped mobilities scholars (e.g. Conley 2012; Jensen 2006, 2010, 2013; Randell 2017) from appropriating his ideas to fit their theoretical and methodological needs. When "reread" in light of today's mobilities situations (Goffman 1963:18, 1974; Jensen 2006:151), there are many obvious ways Goffman's ideas apply to the interaction between drivers, passengers, riders, pedestrians, and other roadway / pathway users. As mobilities scholar Richard Randell (2017) puts it:

They swear at each other, signal through hand and other bodily gestures, take notice of or ignore other road users, sometimes express gratitude, examine each other through mirrors, tailgate, engage in behaviors that have come to be called 'road rage' (Katz 1999; Best 2001; Featherstone 2004) (...). Translated into a Goffmanian vocabulary: self is presented, face work is performed, situational proprieties are adhered to or ignored, techniques of impression management are engaged in, stigmas are hidden or revealed, rituals of deference and demeanor are enacted, civil inattention is afforded to others, or not as the case may be, and so forth (P.665).

Indeed, there are many ways that Goffman's ideas might be applied to the study of contemporary embodied mobilities, constituting what Randell (2017) refers to as a "neo-Goffmanian" approach. However, for the sake of brevity, I will limit the discussion here to the four ideas most relevant to this project: (1) everyday, face-to-face interaction, (2) stigma and its management, (3) the dramaturgical metaphor, and (4) the closely

associated concept of "the self". While the discussion here will be brief, I will return to these ideas throughout this dissertation and provide additional explanation when necessary.⁶³

Everyday, Face-to-Face Interaction

Goffman's (1971) most explicit discussion of embodied mobilities is his essay titled "The Individual as Unit." It is a street-level analysis of the techniques of interaction used by pedestrians and other "units" of traffic to, among other things, "avoid bumping into one another" (P.6). In *Behavior in Public Places* (1963), Goffman explains how in combination with the interaction order (Gofffman 1983), individuals use facial expressions, bodily gestures, and "looks" (i.e. externalization, scanning, body-checking, and civil inattention) to successfully negotiate city streets, limit interaction with strangers, and "give" (Goffman 1959:2) a positive impression of one's self.

A small but growing number of mobilities scholars have adopted Goffman's interest in the microsociology of the street, and subsequently extended the scope of his analysis and elaborated several of his concepts in effort to appropriate his insights to the study of contemporary embodied mobilities. For example, urban planner and sociologist, Ole Jensen (2006, 2010) takes Goffman's (1971) notion of the "with" (P.19) and specifies it in terms of embodied mobilities, referring to it as the "mobile with".⁶⁴ Like Goffman's "with", the "mobile with" is a group of more than one whose members are perceived to be "together" (Jensen 2010:338) – but in the case of the "mobile with" it is together *and* on the move.⁶⁵ Similarly, in *The Sociology of Traffic* (2012), Jim Conley extends Goffman's analysis of street-level interaction by attending to a third type of vehicle and its traffic – bicycles. Conley (2012) also enriches Goffman's analysis by paying more attention to how

the speed of the vehicular "units" and the material qualities of their "shells" afford or constrain interaction with others (P.5). Both Jensen and Conley demonstrate the utility of Goffman's ideas for understanding contemporary embodied mobilities, and the value of a qualitative / interactional, microsociological approach to understanding traffic and transportation.

Stigma and its Management

Nowhere in his small, but influential, book Stigma: Notes on the Management of Spoiled Identity (1963) does Goffman substantively discuss bicycling, automobility, or embodied mobilities. Nevertheless, he does provide the conceptual tools for a unique approach to the study of the embodied mobilities. Contemporary mobilities scholars have operationalized Goffman's concept of stigma in at least two ways: (1) as a pre-existing attribute that comes to shape one's mobilities practices and experiences; and, (2) as the result of particular mobilities practices. In the former case, stigma is the cause of one's mobilities, while in the latter stigma is the *consequence* of one's mobilities. The first case is exemplified by research on racial profiling and disparity in police contacts involving people who ride bikes (Brown and Sinclair 2017; Hoffmann and Kmiecik 2016). Harry Levine (2014) calls the selective enforcement of bicycling laws "the new stop-and-frisk".⁶⁶ Typifying the second case, mobilities scholar Rachael Aldred (2013b) uses Goffman's (1963) concepts of stigma and the interactional techniques employed in its management to explore two problematic cycling identities: appearing too competent (a "proper cyclist") and appearing incompetent (a "bad cyclist"). Aldred (2013b) shows that modes of mobility, bicycling in particular, can produce "disadvantaged and stigmatised social identities" (P.252), and observes efforts of negotiation, disavowal, and challenge as stigma

management techniques. Similarly, my co-authors and I use stigma to help explain why riders' seemingly rude, reckless, and scofflaw behaviors are labeled as deviant and misattributed to bad attitudes rather than a rational response to the hostile and dangerous conditions riders face on the roadway (Marshall, Piatkowski, and Johnson 2017), as well as to understand the antagonism drivers direct at riders (Johnson, Piatkowski, and Marshall 2017).

The Dramaturgical Metaphor

For many, Goffman's most valuable conceptual tool is his dramaturgical metaphor. In *The Presentation of Self in Everyday Life* (1959) and elsewhere, Goffman analogizes ordinary, everyday interaction to a dramatic performance, a "presentation of self." Goffman's metaphor articulates the abstract, yet ubiquitous and quintessentially human, process of social interaction in familiar, concrete terms. Goffman (1959) asserts that, much like a theatrical performer, the imperative of everyday interaction is to convince others (an audience) of your authenticity, legitimacy, and/or normality, whatever the role may be, and thus avoid embarrassing yourself and/or your audience. This is accomplished through managing one's impression to give a positive self-image and coming to a "working consensus" (P.10) with the others involved regarding the "definition of the situation".

As was the case with *Stigma*, nowhere in his expositions of the dramaturgical metaphor, does Goffman explicitly discuss embodied mobilities. More so, Goffman (1959) conceptualizes one's "presentation of self" at a scale of physical proximity suitable for face-to-face interaction. Or, in other words, "the social life that is organised within the physical confines of a building or plant" (P.xi). However, the study of contemporary embodied mobilities requires a much more expansive stage; one equipped with the props

of contemporary mobilities technologies, from transportation infrastructure to global, digital communication. From a mobilities perspective, a significant amount of contemporary, everyday interaction occurs in mobile situations, and not necessarily face-to-face. Examples include sociable head nods exchanged by passing pedestrians, or the angry gestures traded by drivers fighting in traffic, as well as the conversation had by a passenger on a train, talking via cell phone to a friend hiking in a faraway forest. As Jensen (2006, 2013) asserts, in general, Goffman's work is in need of a "deeper sensitivity" to the physical, material, and "over-individual" elements of contemporary embodied mobilities, and would like to see "the situation" expanded to include a more sophisticated specification of space that includes "stretched" and "non-proxemic" dimensions (Jensen 2013:13-16).⁶⁷

The most extensive appropriation of Goffman's dramaturgical metaphor is *Staging Mobilities* framework of Danish sociologist and planner Ole Jensen (2013). Very much a Goffmanian homage, Jensen's "staging mobilities" framework appropriates Goffman's

metaphor by contemporizing, reorganizing, extending its core features, preserving the focus on everyday life, and the familiar language and imagery of the stage. The key idea behind the "staging mobilities" framework is that embodied mobilities, bicycling included, do not "just happen" or "simply take place." Rather embodied

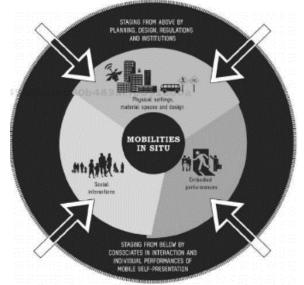


Figure 1: mobilities are "staged" from above", as well as Jensen's Staging Mobilities Framework

"staged from below." Embodied mobilities are institutionally planned and funded, designed and engineered, maintained and managed, regulated and policed by civic authorities – that is, "staged from above." Embodied mobilities are also "staged from below" and made meaningful as people improvise with the roles, scripts, and props afforded by one's body and built environment, as well as their social and cultural milieu.⁶⁸ Jensen (2013) argues that embodied mobilities assemblages, in all their heterogeneously contingent complexity, are best known in situ – in the moment of mobility. Thus, the "staging mobilities" framework is one of "mobile situationism" (P.10-13), in which mobilities are realized as they emerge from "three analytically distinct dimensions: in physical settings and material spaces [staged from above], in embodied performance, and in social interaction [staged from below]" (P.10). In response to the Staging Mobilities framework, Jensen (2013) asks us to consider "who stages mobilities, how, why, where, and with which technologies, artefacts, and design principles ... [as well as] who are staged, how they perceive staging, how they enact or react in accommodating or subversive ways, how they feel about being staged and moved in particular ways, and using particular modes of mobilities" (P.7).

The Self

The essential element of Goffman's dramaturgical metaphor is "the self". Though Goffman referred to the self as being "presented", his point was *not* that we have innate selves that are actively presented (or not) to others. Nor does a presentation of one's self suffice as evidence of the existence of an *a priori* self that is the cause of its own presentation. Rather, for Goffman the self is a social construction, built and maintained in ordinary, everyday interactions. In more positivistic terms, the self is the effect of our

social experiences, not the cause of them; the outcome of our social interaction, not the explanation for it. As Goffman (1959) unequivocally states in the conclusion to *The Presentation of Self in Everyday Life*:

In analyzing the self ... we are drawn from its possessor, from the person who will profit or lose most by it, for he and his body merely provide the peg on which something of collaborative manufacture will be hung for a time. And the means for producing and maintaining selves do not reside inside the peg; in fact, these means are often bolted down in social establishments. There will be a back region with its tools for shaping the body, and a front region with its fixed props. There will be a team of persons whose activity on stage in conjunction with available props will constitute the scene from which the performed character's self will emerge, and another team, the audience, whose interpretive activity will be necessary for this emergence. The self is the product of all these arrangements, and in all of its parts bears the marks of this genesis (P.253).

Given Goffman's emphasis on the bodies, tools, props, stage, teams, and audiences involved in presentations of self, a conceptualization that clearly resonates with assemblage theory, it seems appropriate that mobilities theorists would re-envision Goffman's notion of the self in terms that render it more suitable for the study of contemporary embodied mobilities. Not only do mobilities theorists see hybrids at the macro/systems level of analysis, they also frame microlevel phenomenon such as individuals, as part of the larger mobilities assemblage, as well as machine-human hybrids. Much like Jensen (2013) reworked Goffman's stage, Randell (2017) suggests that the self is in need of similar revisioning (P.664). He and other mobilities theorists, including Dant (2004), Urry (2004) and Conley (2012) argue that car drivers are insulated by metal and glass "shells", to use Goffman's (1971:6) term, and move at speeds that are unconducive to face-to-face interaction with other roadway users, and thus such is attenuated and necessarily mediated by technologies such as horns and flashing lights. More so, Randell argues that the roadway is where everyday embodied mobilities

interaction is staged (Jensen 2013), or to again appropriate Goffman's (1967) phrase, it is "where the action is" (Randell 2017:666).

Considering such, Randell suggests that that the proper object of analyses of the self, is not the self of the driver, but rather the self of the "vehicular unit", the machine-human hybrid that he calls the "autoself". Randell (2017) goes on to describe the autoself as "a self that is understood to be: (1) an imputed self; (2) a cyborg self in that it is brought into existence only on those occasions when automobiles are driven; and (3) is constructed within routine automobile social interaction" (P.669). Unfortunately for my efforts, Randell limits his reconsideration to the selves of car drivers and his notion of autoselves. However, in the next section I follow Randell's conceptual lead, and describe an analogous "bike rider" and "riderself" and discuss the usefulness of the concept for this project.

TAKEAWAYS

In the following section, I start with a reflexive consideration of the ways my personal and professional interests and the programmatic context in which this project was developed may have influenced my choice of theory. I the revisit the "four most relevant" of Goffman's appropriated ideas discussing the relative strengths and shortcomings of assemblage theory and the "neo-Goffmanian" approach to embodied mobilities and detailing how the appropriated ideas of Goffman inform my analysis of bicycling and the people who ride bikes.

As noted, there are a number of approaches to the study of embodied mobilities. So then, why have I chosen to use assemblage theory and the ideas of Goffman? The reasons are personal, practical, and substantive.⁶⁹ First, I admit to having a personal,

professional preference for the sociology of everyday life, the ordinary and familiar, that when made "strange" (Garfinkel 1967; McGrane 1994; Sternheimer 2009) reveal a side of reality that no other science can. This fondness comes, at least in part, from my familiarity with the work of Goffman acquired by way of my studies in sociology at CU Boulder. I also thoroughly enjoy in a similar way, the data collection and analysis methods commonly used in conjunction with Goffman's ideas, most importantly participant observation and qualitative interviews. Similarly due to my graduate training in environmental sociology, I have long been interested in the critical realist effort of Roy Bhaskar (1975), Margaret Archer (1995), and others to bridge the [materialist/realist - idealist/constructionist] divide" (Bell 2012; Carolan 2005; Goldman and Schurman 2000) within the social sciences, an effort to which many environmental sociologists have contributed, myself included (Brenkert, Gailus, Johnson and Murphy 2003). It is not a coincidence that assemblage theory provides a host of complimentary concepts for "thinking beyond" a number of conceptual divides including the micro/macro, material/ideal, and structure/agency dichotomies. 70 When planning my dissertation, and thus to an extent a professional identity, assemblage theory and Goffman were chosen in part due to my familiarity and fondness, but also a desire to establish myself as a qualitative/interpretive, environmental sociologist.

Though assemblage theory and Goffman's ideas developed independently, they share many qualities that make them complementary approaches to the study of embodied mobilities (Jensen 2013; Randell 2017:664). This project fruitfully draws from both approaches, and in doing so, illustrates their complementary aspects. For example, assemblage theory and Goffman's ideas share a distinctly post-positivist character.⁷¹

Both assemblage theorists and Goffman approach reality from a post-structuralist, 72 nonessentialist, anti-reductionist standpoint that highlights the emergent (non-causal), contingent, and interactional achievement that is an assemblage / presentation of self (Jensen 2013; Randell 2017; Rawls 1987). Similarly, the inductive approach and qualitative data collection methods often associated with Goffman easily accommodate the complex and emergent ontology of assemblages. Not only are assemblage theory and Goffman's ideas fundamentally compatible, in many ways they ameliorate each other's weaknesses. As already discussed, mobilities theorists have appropriated Goffman's ideas to improve the conceptualization of the assemblage, making it an ontologically sophisticated conceptualization of the reality constructed in everyday interaction. For example, several mobilities scholars assert that Goffman's meticulous attention to the presentation of one's self infuses agency into and animates the structureheavy assemblages informed by actor network theory (Dant 2004; Jensen 2006:153-154; Richardson and Jenson 2003:15). Similarly, Randell (2017) uses Goffman's understanding of one's presentation of self and face-to-face interaction to flesh-out his image of the car-driver assemblage. As noted, he theorizes that the attenuated and mediated, face-to-face interaction of car-drivers gives rise to a distinct "autoself", a self that is often in conflict with other roadway users (Johnson, Piatkowski and Marshall 2017, Katz 1999), as well as at odds with other aspects of one's idealized, perhaps a more "authentic", self. Similarly, I find that Goffman's dramaturgical metaphor complements assemblage theory in that it is a much-needed heuristic device. The overall imagery and language of Goffman's metaphor is intuitive, familiar, and readily appreciated, especially

vis-à-vis the abstract and esoteric character of the post-positivist ontologies informing assemblage theory.

I now return to the "four most relevant" of Goffman's appropriated ideas to further discuss the ways they inform this project. But first, I want to highlight an important point of departure from most of the literature reviewed thus far. Up until now, I have distinguished between mobilities in general, and embodied mobilities in particular, with just a few brief mentions of bicycling. However, from here on, my primary focus will be on bicycling and the people who ride bikes (PWRB). Bicycling is one of many, mesolevel modes of embodied mobility, the one featured in this project, and thus the one other modes of embodied mobility will be understood vis-à-vis. The following "takeaways" focus on the ways the appropriated ideas of Goffman inform and frame my analysis of bicycling and the people who ride bikes.

Everyday Embodied Mobilities Interaction

Here, I use insights of Goffman, as appropriated by Conley (2012), Jensen (2006, 2010, 2013) and Randell (2017) to better understand bike riders', interaction with other roadway/pathway users. These mobilities scholars have appropriated Goffman's notion of everyday face-to-face interaction so as to "stretch" (Jensen 2013:14) it beyond Goffman's "response proximity" and accommodate the reality of contemporary transportation and communication technologies such as automobile lights, mass transit, and cell phones. It is this "stretched", mediated, and at times, attenuated image of everyday embodied mobilities interaction that informs this project. My attention to everyday embodied mobilities interaction came about late in the project, from a preliminary analysis of interview transcripts, and a subsequent reconsideration of

autoethnographic memos and fieldnotes that captured the microsociological details of my own and other riders' roadway/pathway interactions. The resulting understanding led to codes used in the further analysis of interview transcripts that subsequently inform the discussion of Riders' strategies to negotiate the rules of the road in Chapter 5, as well as the Chapter 6 discussion of the scenes of everyday bicycling.

Bicycling Stigma and its Management

As mentioned, mobilities scholars have used Goffman's concept of stigma to conceptualize both the cause and consequences of one's embodied mobilities interaction and experiences. Here, I too use both understandings of stigma to explore the unique embodied mobilities interactions and experiences of people who ride bikes. As a seminal concept, stigma has been used throughout this project to characterize several problematic aspects of bike riders' interactions with other roadway/pathway users, and their embodied mobilities experiences in general. I have used the concept of stigma from the beginning to plan the project, guide preliminary research, and throughout the data collection and analysis. Though the concept of stigma informs the entirety of this project, it is particularly important to the discussion the riding practices of some types of Riders in Chapter 5, as well as the Chapter 6 analysis of the "scenes" in which people who ride bikes "perform the bike rider role" (or not), and the "boundary work" associated with such performances.

Staging Bicycling

As noted, Ole Jensen appropriated Goffman's metaphor for the study of contemporary embodied mobilities, and here I appropriate Jensen's framework for the study of bicycling. Jensen's *Staging Mobilities* framework asks us to consider "who stages

mobilities, how, why, where, and with which technologies, artefacts, and design principles ... [as well as] who are staged, how they perceive staging, how they enact or react in accommodating or subversive ways, how they feel about being staged and moved in particular ways, and using particular modes of mobilities" (Jensen 2013:7). In Chapters 4, 5, and 6 I respond to these questions as they pertain to bicycling and the people who ride bikes in the Boulder-Denver metro area. Much like stigma, Goffman's metaphor and thus Jensen's framework are seminal ideas in this project, and are employed throughout, most obviously as a heuristic device used to write about the otherwise abstract phenomenon of social interaction, and the "stages" of contemporary Boulder and Denver.

As mentioned in the introduction to this dissertation, I find the common understanding of "the bike rider" to be oversimplified. And while I am primarily interested in the question of "who is a bicyclist?", before I can adequately address such, the question

"what is a bike rider?" must be answered in a more sophisticated way than "a person riding a bike" (which while necessary, is not sufficient). Thus, in this section I detail the "bike-rider assemblage", a discussion facilitated with references to Goffman's dramaturgical metaphor and Jensen's *Staging Mobilities* framework.

At the most abstract level, my model of a bike-rider assemblage includes three dimensions: person, place, and practice, and

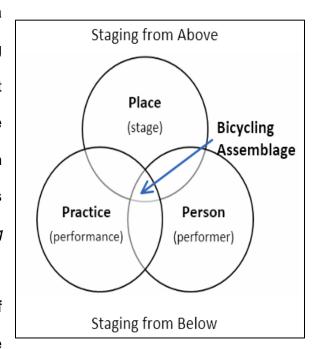


Figure 2: The Bicycling Assemblage

are intended to keep my thinking and observations broad enough to capture the complexities of bicycling and embodied mobility in general. While my model's tripartite distinctions are derived from the divisions in Jensen's framework (physical settings, social interactions and embodied performances) they are not precisely co-terminus. One key difference is my primary-level consideration of *who* is being "staged from above", and *who* doing the "staging from below". Unlike Jensen's, my model includes the dimension I call *person*. The other important difference is that my model combines Jensen's dimensions of *social interactions* and *embodied performances* (both elements of "staging from below") into the single dimension I refer to as *practice*. As with Jensen, my model's boundaries do not represent ontological claims, but rather are analytical distinctions made to guide observation and facilitate analysis. As usual, "reality" in this case is not so easily modeled.

Person: The first aspect of my bike-rider assemblage model is the person. I discuss it first, because the person is the most naively representational of the elements of the bike-rider assemblage, and the one to which "the bike rider" is most often erroneously reduced. By making the person a primary-level aspect of my model (rather than the totality, or implicit throughout), I intend to highlight the incompleteness of the singular focus on the person riding, and avoid a subsequently reductionist perspective. The explicit inclusion of the person in my model is also meant to ensure that I attend to both the bodies and minds of riders, as well as associated socio-mobility identities, and (often conflicting) self-conceptions. Jensen and others (e.g. Hoffman 2013; Horton n.d.; Lugo 2013) have found that the body of a bike rider is an important dramaturgical prop, and the success of a bicycling performance is contingent on phenotypical features such as being young/old, white/black, or man/woman. More so, other directly observable characteristics of the

person such as one's bicycle, bicycling equipment, clothes, and other prostheses of embodied mobility (or lack thereof) are similarly important to the bicycling performance. The person aspect of my bike-rider assemblage model also emphasizes the fundamental social-psychological phenomena of mind, identity, and self and defined in a manner generally consistent with those put forth by Gecas (1982), and Gecas and Burke (1995). As a social psychological study, the notion of the self and related concepts are of central importance and their relevance to bicycling and people who ride bikes will be progressively refined throughout the remainder of this project.⁷³

Place: The second dimension of my bike-rider assemblage model is place. My understanding of place all but perfectly aligns with the "staging from above" (physical settings, natural spaces, and design) aspect of Jensen's framework. The place aspect facilitates the inclusion of environmental and material affordances, like the weather and topography, as well as, community infrastructure, both "hard" (like bike lanes, signage, and pathways) and "soft" (such as roadway laws, educational programming and economic incentives) in the understanding of the bike-rider assemblages. More so, the place aspect sensitizes my observations and analysis to the role of social groups, organizations, and other "social facts" such as the various cliques, scenes, prevailing cultural norms, and values that are a part of the socio-cultural milieu of a place. And while we often think of place in terms of our hometown, neighborhood, campus, or other mesolevel specification, place can, and will, be conceptualized at all levels of analysis when exploring the bikerider assemblage. For example, Horton, Cox and Rosen (2007) and other bicycling scholars (not to mention the news media and first-hand experiences) have noted important macrolevel differences between nations and regions in the rates, manner, and

meanings of bicycling. And while the distance between a bike lane and a "claimed-lane" may be only a few feet, and the distinction between a sidewalk and a multiuse pathway is merely one of official designation, the difference in the meanings and experiences of riding in such places are much more significant, and thus an important part of the bike-rider assemblage.

Practice: The final aspect of my bike-rider assemblage model is practice. As mentioned, the practice aspect of my model combines Jensen's consideration of "social interaction" and "embodied performances" into a single dimension. Though presented as distinct elements in his Staging Mobilities framework, Jensen notes that embodied mobility is a complex phenomenon, and thus amenable to being understood as both a presentation of self (Goffman 1959), as well as, a manifestation of one's habitus (i.e., one's affective disposition, knowledge, skills, techniques, physical capabilities and "tastes", Bourdieu 1977, 1990:66-67, 1992:127-128). Embodied practice ... is where reflexive and rationally calculated practices meet and mingle with embodied and affective tacit acts of mobile performativity (Jensen 2013:14). Jensen and I both employ Goffman's concept of the presentation of self to discuss the interactional elements of riding a bike. However, in explaining embodied performances, Jensen primarily refers to James Gibson's theories of perception and motion, and Kevin Lynch's theories of mobilities experiences, while I prefer Bourdieu's concept of habitus to summarize the effects of the "over-individual" (i.e. social structural, cultural, biophysical) phenomena on an individual's bicycling, and embodied mobility performances in general. Of course, bicycling is just one practice of embodied mobility and there are innumerable riding sub-practices that contribute greatly to the complexity and idiosyncrasy of the bike-rider assemblage. Thus for me, it is in the *practice* aspect of the bike-rider assemblage model that Goffman and Bourdieu meet to remind me to attend to directly observable riding behaviors such as when, where, with whom, and for what purpose(s) one rides, as well as, how frequently, how fast, the route taken, the "rules of the road" adhered to (or not), and the technologies used, including type of bike, safety equipment, apparel and other gear. The extent to which such reflects a rider's agentic presentation of self, or their given habitus, is an empirical matter.

Mobile practices are therefore related to the mundane and everyday – life practices where the body and the cultural codes we navigate by create a situation where we are being 'staged' as well as 'staging' ourselves in what looks like banal practices, such as crossing a street (Goffman 1963:140). As Goffman rightly illustrates, mundane and ordinary embodied mobility practices are 'cultivated' into particular ways of moving, interacting in movement and bodily 'coordination-in-motion'. Take, for example, techniques that pedestrians employ in order to avoid bumping into one another. These seem of little significance. However, there are an appreciable number of such devices; they are constantly in use and they cast a pattern of street behaviour. Street traffic would be a shambles without them (Goffman 1972:6). (quoted in Jensen 2013:96)

In the effort to answer the questions "what is a bike rider?", as well as "who is a bicyclist?" I use the bike-rider assemblage framework presented here to structure the remainder of this dissertation. In Chapter 4, I focus on the places of Boulder and Denver, and the "staging from above" that makes a *place* part of the bike-rider assemblage and real at in the lives of people who ride bikes. I present the results of my effort to understand the *practices* of people who ride bikes in Chapter 5. Here I discuss directly observable riding behaviors such as when, where, with whom, and for what purpose(s) one rides, as well as, how frequently, how fast, the route taken, the "rules of the road" adhered to (or not), and the technologies used, including type of bike, safety equipment, apparel and other gear. I also discuss the face-to-face embodied mobilities interactions and

microsociological experiences of PWRB and consider the ways they are connected to riding practice widely regarded as rude, reckless, and scofflaw, even by other PWRB. Chapter 6 picks up where Chapter 5 ends, continuing with the effort to address the question, "who is a bicyclist?" but with more of a focus on the social psychological and interactional differences and similarities among and between different types of people who ride bikes. To do so, I explore three themes of findings: the number and variety of scenes in which people who ride bikes (PWRB) perform the bike rider role; the meaning of bicycling and PWRB, and Riders' subsequent motivation for riding; and, the boundary work PWRB engage in to manage their impression as a person who rides a bike. In all, the bike-rider assemblage is an ephemeral, emergent phenomenon that, while readily understood abstractly in terms of a person, place, and practice, can be observed empirically only *in situ*. The same person riding in a different time/space (place), or in different manner or for another purpose is not the same bike-rider assemblage.

The Riderself

When initially reading Randell's call for research focused on the autoself, I was skeptical that the concept could, or should, be adapted to describe people who ride bikes, or that there is an analogue that is qualitatively different from the self of the person riding the bike. And though Randell's argument for an autoself may not fully apply to bike-riders, the idea was provocative enough to warrant a reconsideration of my initial coding of interview data. And after additional analysis employing the idea, I have come to find the notion to be adaptable and applicable to bicycling and people who ride bikes. Thus, here I use it as the basis for an argument for a social psychological entity referred to here as "the riderself".⁷⁴

Much like the everyday understanding of drivers and their cars, commonsense understandings of bicycling say that the person on the bike is the rider, and as a person possesses an innate, non-imputed, self "housed within the body of its possessor, especially the upper parts thereof" (Goffman 1959:252). And in following, here I use the term "the rider" to denote this familiar understanding of people and their bicycles — a phenomenologically distinct, non-agentic object under the control of the rider. In contrast to the rider is the riderself. Inspired by, but not precisely synonymous with, Randell's (2017) concept of the autoself, the riderself is (1) a cyborg self, an assemblage of person and machine, though as I will detail, to a far lesser extent than the autoself when it comes to everyday, face-to-face, embodied mobilities interaction. (2) The riderself is a Goffmanian self, one that emerges from social interaction as a bike rider, out of performances of the bike rider role, both on bike and off. And, (3) the riderself is a managed self, composed of identities that are both idealized and imputed, with which people who ride bikes are comfortable with to greater and lesser degrees.

More specifically, there are three relevant points of similarity and distinction between the autoself and the riderself worth mentioning. First, while both the autoself and riderself are cyborg selves, there are important differences in the machine aspects of the cyborgs. For example, dissimilarities in the "shells" of the "vehicular units" (Goffman 1967:6), that is, skin and clothes versus metal, glass, and hard plastic, as well as the differences in speed at which bike-riders and car-drivers move result in stark differences in the degree to which face-to-face interaction is attenuated and/or mediated (Conley 2012; Randell 2017). Most importantly, the minimal "shells" and relatively slow speeds at which bike-riders typically move afford face-to-face interaction in manner similar to that

of pedestrians (and as described by Goffman 1971). This is especially true when compared to the sequestering nature of automobile passenger compartments that attenuate face-to-face interaction and force drivers to interact with other roadway users by way of mediating technologies. Second, like all selves the autoself and riderself both emerge from roadway interaction. However, unlike Randell's autoself, my observations suggest that the riderself is also maintained and matures through off road and off bike performances of the bike rider role such as participating in family fun rides, races, bicycling advocacy meetings and protests. Last, the autoself and riderself both include idealized and imputed meanings, motivations, and thus identities. In his 2017 exposition, Randell does not discuss the character of the riderself. However, other mobilities scholars have observed that such is often negative and attributed to poor attitudes and other individual shortcomings, rather than induced by the system of hyperautomobility. As Katz (1999:18-21) suggests, it seems that on the road, everyone else is "that asshole". Sometimes YOU are "that asshole", whether intended or not (Fine and Manning 2003:46; Goffman 1959). Similarly, the riderself is frequently perceived to be, if not presented as, a rude, reckless, and scofflaw roadway user and in other ways a deviant and stigmatized person (Aldred 2013b; Johnson, Piatkowski and Marshall 2017; Marshall, Piatkowski and Johnson 2017). Indeed, roadways are antagonistic places, rife with competition and conflict, at least much more than most other institutional "stages" on which we regularly present ourselves. In a sense, when we drive and ride we are not "ourselves", but rather our autoselves or riderselves. Other aspects of one's idealized self, identities such as father, wife, boss, student, professor, etc., stand in contrast to one's autoself and/or riderself.

Yet I still find the autoself to be more theoretical than practical (an idea with which Randell himself would agree),⁷⁵ and thus I will use the term riderself sparingly and precisely in this dissertation to refer to this perspective on the self. In Chapter 5, the concept of a riderself is used to help explain riders' strategies to negotiate the "rules of the road" and the ostensibly rude, reckless, and scofflaw manner of riding in which some types of riders engage. And in Chapter 6, the notion of a riderself foregrounds the discussion of riders' boundary work and effort to distinguish their riderselves from "others". As I will explain, the presentation of riderself is a circumspect one.

CHAPTER 4: STAGING BICYCLING FROM ABOVE

If we are to conceive of bicycling as a presentation of self, we need a clear picture of the stage on which such performances occur. Thus, in this chapter I use Erving Goffman's dramaturgical metaphor (1959) and Ole Jensen's (2013) staging mobilities framework to "set the stage" for a dramaturgical understanding of the performances of the bike rider role in Boulder and Denver. In conceiving of his staging mobilities framework, Danish urban designer and sociologist Ole Jensen (2013) distinguishes between "staging from above" and "staging from below" (P.5-12). Jensen reminds us that everyday embodied mobilities, bicycling included, are institutionally planned and funded, designed and engineered, maintained and managed, regulated and policed by authorities, as well as, depicted in and facilitated by the news, entertainment, and social media, plus governed by informal social norms - that is, "staged from above". Everyday embodied mobilities are also "staged from below" – performed and made meaningful through social interaction as people improvise their presentations of self, given the affordances of their built environment and sociocultural milieu. In this chapter, I focus on the former, what Jensen also refers to as the "scenography" of everyday embodied mobility.76 Using an appropriated version of the "staging from above" idea, I explore the built-environmental and social structural aspects of the "over-individual" (Jensen 2013:13) influences on bicycling in Boulder and Denver.

In thinking about bicycling as a presentation of self, and how it is staged from above, it is helpful to conceptualize bicycling in familiar, dramaturgical terms. In the way that theatrical performers are afforded a stage, including sets, props, costumes, and a cast of fellow performers, as well as a script, and most importantly, an audience, so too

are Boulder and Denver bike riders afforded a network of routes, lanes, and pathways, bicycles, helmets, bags, and other riding gear, a host of laws and regulations, education and advice, as well as an audience of other roadway and pathway users, most of whom are not bike riders. This chapter focuses on these over-individual phenomena. But before discussing the details of who and how bicycling is staged from above in Boulder and Denver, some additional information is necessary. Thus, in the following paragraphs, I briefly highlight the unique data sources that inform this chapter. Next, I provide a concise overview of the natural and built environmental, and sociodemographic features or Boulder and Denver, those which bicycling stagers confront as "social facts" (Durkheim 1895). Finally, I present a short overview of bicycling advocacy in general, and how it relates to the notion of "staging".

CHAPTER 4 DATA SOURCES

The findings presented in Chapter 4 come from the analysis of a wide variety of sources, including publicly available statistics, official documents, news stories, organization websites, and social media, as well as data procured through autoethnographic journals, fieldnotes, and interviews with local, professional planners and advocates. Of particular importance are the interviews with professional planners and advocates, as well as applications submitted to the League of American Bicyclist's (LAB) "Bicycle Friendly Community" (BFC) rating scheme by Boulder and Denver officials. While many measures and lists of "bicycle friendliness" exist, the LAB's BFC designation is relevant for its prestige among Boulder and Denver politicians, planners, and advocates. Thus, I use the BFC applications from the City of Boulder and City & County of Denver from the years 2012, 2015, and 2017 as the crucial sources of data to describe the staging of bicycling

from above in Boulder and Denver. Whenever possible, I have triangulated the BFC application data with what I have learned from interviews with municipal transportation officials and professional bicycling advocates, and other sources of data.

BOULDER AND DENVER

In the way that separate theater companies are uniquely located in space and time, have their own performance facilities and funds, production teams and stage crews, as well as performers and audiences, so too do Boulder and Denver have distinct bicycling infrastructures, budgets, plans, offices, and employees, as well as, dedicated advocacy organizations, bike shops, and most importantly, rider communities. And though they share a regional locale and sociocultural history, are subject to the same state and federal regulations, and coordinate regularly under the guise of intergovernmental agreements, as a matter of qualitative/interpretive perspective, here I consider Boulder and Denver to be distinct bicycling venues.⁷⁸ This conceptualization allows for a breadth of observation and a point of comparison that I draw on throughout this chapter.

Being located approximately 25 miles from one another, and at a similar altitude (about one mile above sea level), Boulder and Denver share a very similar climate, one in which scorching heat and freezing cold are relatively common. Boulder and Denver both rank high in lists of snowiest U.S. cities, number of days above 90 degrees, and other measures of extreme weather. Nevertheless, the region's mid-latitude, high-plains climate is generally conducive to year-round riding. Both Boulder and Denver rank high on Sperling's "climate comfort index" 79 – 73 and 72 respectively – and well above national average of 54. The number of days in which weather extremes, or the impassibility of bicycling lanes and pathways due to ice, snow, or flooding totals no more than a couple

dozen in typical year. Low humidity and cool summer evenings, along with abundant and strong winter sun, play large roles in making bicycling possible year-round, as do dedicated bicycling facility maintenance, winter riding promotions, and a robust outdoor culture, topics that will be further discussed later in this chapter.⁸⁰

Denver is large and rapidly growing city. With a population of almost 700,000 and an area of 155 square miles, it ranks in the top 5 percent of all American cities in terms of population and area. With a population just over 100,000 and area of 25 square miles, Boulder is just one seventh the size of Denver, and does not appear in the top half of the rankings of American cities in either measure.⁸¹ As the urban core of a large metropolitan area of almost three million residents, Denver is essentially built-out and surrounded by suburban communities, making its city limits little more than political lines. While Boulder is the most populous municipality of its namesake county, it is surrounded by undeveloped open space, giving it "natural" boundaries that unmistakably distinguish it from neighboring communities and the Denver metro area in general.

Boulder's road network length is just over 400 miles. Denver's is approximately 2250 miles, which makes it about seven times longer than Boulder's, the same factor that distinguishes the cities' relative sizes. While Denver is much larger than Boulder, the cities are equally dense in terms of their population and road density, at approximately 4200 people and 15 centerline miles per square mile, respectively. This suggests that, while Denver is a quantitatively larger city, everyday embodied mobilities are likely to be performed against a qualitatively similar built environment backdrop.

In general, Boulder and Denver residents are healthier, wealthier, and wiser, 82 as well as whiter and younger than state and national averages. The majority (78%) of

Boulder residents identify as white-only, though the same number drops to 53% in Denver, one notable exception to the aforementioned generalization. People identifying as Hispanic, mostly of Mexican heritage, make up the largest minority ethnic group in both cities, comprising 14% and 31% of the population respectively. As of 2017, the median value of a detached, single-family home in Boulder was over \$885,000 (Re/Max Boulder),83 while in Denver the price is less than half at \$415,000 (Denver Metro Association of Realtors). The medium household income in Boulder is almost \$75,000, and just shy of \$72,000 in Denver, making both well above the state median of \$65,000 and national median of \$55,000. However, 22% of Boulder residents and 16% of Denver residents live in poverty.84

Boulder and Denver have rates of bicycling well above the state (1.3%) and national (0.6%) rates. Depending on the count, 85 anywhere from 9% to 23% of all trips in Boulder are made by bike. In Denver, citywide rates of riding are relatively modest at 2.3%, though the downtown rate of 8% to 12% approaches that of Boulder. Rates of recreational riding are even higher, with over 50% of people in both communities reporting that they ridden a bike recreationally in the past year. Rates of riding to/from school among school-aged children range from 3% in Denver, to 10% in Boulder, and about one third of Boulder and Denver bicycle commuters identify as women. These figures put both cities well above national averages for these two prominent underrepresented groups of riders. Though above state and national rates of riding, Boulder and Denver do not see the rates of similarly-sized, top-ranked bicycle friendly communities like Davis, CA at 18.6% (Boulder's superior) and Portland, OR at 6.7% (the top-ranked big city in the U.S.).

As is the case in general, Boulder and Denver bike riders are overrepresented in collision, injury, and death figures relative to their mode share. Rates of bike-car collisions⁸⁶ in Boulder have averaged about 190 per year over the past 5 years, resulting in an average of 60 serious injuries and 3 fatalities per year, which makes it safer for bike riders than most other Colorado cities of similar size. In Denver, there is an average of over 260 bike-car collisions and 5 fatalities each year, making it slightly more dangerous than its peer BFC cities, though the Denver bike-car collision rate is quickly decreasing (34% in 5 years) despite increasing numbers of riders. When standardized by miles of bicycling commuting, we can see that Boulder's collision rate is about two-thirds greater that Denver's (327 per 10K versus 195 per 10K), both of which are well above the LAB's goal of 50 to 100 collisions per 10K of bicycling miles. Data from the People For Bikes "Places for Bikes" rating scheme corroborates the LAB's findings that Boulder and Denver are relatively dangerous places to ride among elite bicycling communities.87 Unsurprisingly, eliminating serious injury and fatalities, an effort commonly referred to as "vision zero" is currently the primary objective of both Boulder and Denver transportation authorities.

STAGING BICYCLING FROM ABOVE

In continuing to think dramaturgically about bicycling in Boulder and Denver, I now want to move beyond the backdrop of the natural, built and sociodemographic environments and consider the bicycling "stagers" and their staging activities in Boulder and Denver. In the way that a theatrical or film production team includes producers, writers, and directors, as well as a host of other production specialists, designers and crews, so too do we find in Boulder and Denver a large number and variety of bicycling *stagers* – the

individuals, groups, and organizations responsible, for better and for worse, the stages on which people perform the bike rider role (Goffman 1959:22-30). The term stage is used allegorically to refer to all of the over-individual aspects of riders' built environments and sociocultural milieu that serve as affordances with which a rider might be a successful rider. A bicycling advocate is a stager who works to see more people ride bikes, more frequently, and more safely. Conceptually, stagers and advocates are distinct phenomena. For example, transportation planners and engineers regularly build roadways that prioritize the volume and speed of cars but endanger and discourage bike riders. Also, police officers may use their discretionary powers to accept a driver's account of a collision with a bike rider because they stereotypically assume most riders are rude, reckless, and scofflaws. In both instances, the bicycling stager is not an advocate. And, while individuals can be bicycling advocates by educating and encouraging colleagues, friends, and family members to ride more frequently and more safely, due to their limited impact on bicycling rates and experiences in general, are not considered to be stagers. It is only when individuals practicing personal advocacy join a group or organization, or participate in instances of collectivized, direction action that they become stagers. I refer to those stagers whose occupational career focuses on efforts to get more people riding bikes more frequently and more safely as professional bicycling advocates.89 However, in my observations of Boulder and Denver bicycling stagers, the majority (and all that I directly observed) of the bicycling stagers are also advocates, at least according to their stated intentions. Thus, here in Chapter 4, unless explicitly stated otherwise, I use the terms stager and advocate interchangeably, though will highlight the distinction on occasion to make an analytical point.

Among professional bicycling advocates, staging efforts are frequently known in terms of five dimensions collectively known as "the Five E's": (1) evaluation and planning, (2) engineering, (3) enforcement, (4) education, and (5) encouragement.⁹⁰ After a brief explanation of the Five E's,⁹¹ I use the dimensions to structure a more detailed discussion of what sort of stagers engage in which types of staging in Boulder and Denver.

- Evaluation and planning: First and foremost, successful bicycling stagers assess, plan, fund, staff, and evaluate bicycling programs and projects. Knowing the needs of riders (and potential riders), setting measurable goals, and having a comprehensive bicycling program that identifies resources such as funding, staff, and community partners are foundational staging activities indeed, progress without such is difficult, if not impossible.
- Engineer: The most obvious evidence of efforts to successfully stage bicycling is the
 existence of inviting, efficient, and safe bicycling facilities. The built environment is a
 key determinant of whether people will get on a bike and ride. Thus, the most
 successful bicycling stagers design, build, manage, and maintain attractive,
 convenient, and safe places to ride, connect these bicycling facilities to other modes
 of everyday embodied mobility, and provide secure bicycle parking and storage.
- Enforce: Successful bicycling stagers ensure that roads, pathways, and trails are safe for all users. They work to enact, and subsequently enforce laws and regulations to promote safety and protect riders' rights. Law enforcement officers must understand these laws, know how to enforce them, and apply them equitably, thus specialized training and a good relationship between the bicycling community and law enforcement are critical.

- Educate: Effective bicycling stagers teach people of all ages and abilities the knowledge and skills necessary to ride confidently and safely. Bicycling education includes riding skills, the rules of the road, and basic bicycle mechanics. More so, beginning with bicycling-safety education as a routine part of public education, bicycling education continues with efforts to make riders, and other road and pathway users, aware of their rights and responsibilities through public education campaigns such as the Share the Road campaign. 92
- Encourage: Finally, effective bicycling stagers produce a bicycling scene that encourages both committed and would-be riders, celebrates bicycling, and makes it a part of mainstream culture. This is accomplished by providing a variety of opportunities and incentives to "put the fun between your legs" (Furness 2006), get on a bike, and ride! National Bike Month and Bike to Work Day, bicycle-themed celebrations and rides, commuter challenges, community bike maps, and route-finding signage are examples of bicycling encouragement. So too are public bike sharing systems, as well as amenities such as the availability of free or low-cost tools, parts, and showers at work, school, and transit stations and other hubs of everyday mobility.

STAGING BICYCLING FROM ABOVE IN BOULDER AND DENVER

The large number and variety of bicycling stagers in Boulder and Denver makes a discussion of each, and their manifold staging efforts, an unproductive way of understanding them. Fortunately, generalizations can be made, and in this section, I present a typology of Boulder and Denver bicycling stagers and their staging efforts. I discuss four types of bicycling stagers: (1) Civic Stagers, (2) Professional Non-Profit (PNP) Stagers, (3) the Bike Biz, and (4) DIY Bicycling Activists, and use the Five E's to

specify their staging efforts. Unlike the Five E's facet of the typology, I have developed the stager categories from the analysis of data, based primarily (though not exclusively) on the stagers' fiduciary relationship(s) with people who ride bikes and the public in general. As categories, the distinctions that follow are analytic, and describe ideal type categories. The actual stagers and staging efforts observed and presented as examples, fit the theoretical definitions to greater and lesser degrees. More so, the description that follows is specific to Boulder and Denver and likely does not accurately represent the staging situation in other communities. However, as a qualitative/interpretive analysis, the social processes and structures of staging bicycling from above are assumed to be generalizable (Irvine 2000; Stolte, Alan and Cook 2001).

Civic Stagers

The first, and arguably most important, type of bicycling stagers identified is what I have termed "civic stagers" because they are notable as agencies funded by local tax dollars, and other public money such as grants from state and federal governments. This means that even though civic stagers are bicycling advocates, they are also accountable to the public, the majority of which does not bicycle as a mode of everyday embodied mobility, and work under the mandate of local politicians, whose political careers depend on said non-riding public. I further sort civic stagers into the following categories: (1) municipal transportation agencies, (2) quasi and inter-governmental agencies, (3) schools, and (4) law enforcement agencies.

Municipal transportation agencies play a role in every aspect (all five E's) of the staging of bicycling in Boulder and Denver. They take a leading role in the evaluation and planning, engineering, and enforcement dimensions, while playing an important

supporting role in education and encouragement efforts. The most important municipal transportation agencies in Boulder and Denver are also bicycling advocates. In Boulder, municipal bicycling stagers include several various divisions, departments, and programs within the City of Boulder and Boulder County. In the City, the Public Works Department and its Transportation Division, as well as, the GOBoulder and Greenways programs are the primary bicycling stagers. Boulder area riders are also staged from above by the Boulder County Transportation Department, the Multi-Modal Division, and its Bicycle Program, in particular. In Denver, the bicycling program is primarily managed by Public Works, and Parks and Recreation departments, with support from Community Planning and Development, Environmental Health, Public Health, and Office of Economic Development. Other important civic stagers include the State of Colorado and the Federal Government, most importantly as sources of standards, regulations, and funding.⁹³

Boulder and Denver both have officially recognized and actively implemented bicycling master plans to "help the community become more bicycle-friendly and encourage ridership" (BFC application Fall 2018:35). *Denver Moves: Bicycles* was established in 2011, and last updated in 2016. Brief reports of progress are published annually, and in-depth reports are published every 5 years. Both the City and County of Boulder have a *Transportation Master Plan* (TMP), which subsume bicycling. The City's TMP was first adopted in 1989, and biennial reports of progress are used to guide updates to the plan every 5 years, the most recent of which is, at the time of writing, is just beginning, and scheduled to be completed in the fall of 2019. Boulder County's TMP was first implemented just in 2012 and is also currently undergoing its first update.

Municipal bicycling plans and programming benefit from the input of businesses and citizens. Both Boulder and Denver have active citizen advisory committees that advise municipal officials and staff on all matters involving riders and bicycling related projects and programs. While Denver's advisory committee, the Mayor's Bicycle Advisory Council (MBAC), is focused solely on bicycling and people who ride bikes, in Boulder guidance is provided by a more comprehensive Transportation Advisory Board (TAB). Like its Transportation Master Plan, the Boulder TAB does not single out bicycling or any other mode of mobility, but rather attends to the needs of riders though a "complete streets" and "vision zero" approach. The unwillingness of Boulder officials to devote resources exclusively to bicycling is a perennial criticism of professional bicycling advocates like Community Cycles and the League of American Bicyclists.

Both cities employ bicycling program managers and teams of dedicated staff to implement their plans. Boulder employs four full-time bike program staff, and Denver has twenty-six. These figures work out to one full time bicycling staff per 27,000 residents for Boulder, and 1 per 24,000 residents for Denver, both of which are well above the bicycle friendly community (BFC) minimal standard of one full time bicycling program staff per 148,000 residents, yet well shy of the highest BFC bar of 1 per 10,000. Both Boulder and Denver's bicycling promotion programs are actively implemented by professional staff and dedicated funding. In 2017, Boulder spent approximately \$7 million, about 18% of its total transportation budget, on bicycling, and has done so for decades. Unsurprisingly, Boulder's planned bicycling facilities are over 85% built out. What's more, in 2013, Boulder voters ensured that the bicycling program would be funded through 2029 by renewing the City's .015¢ per dollar "transportation and open space" sales tax. *Denver*

Moves: Bicycles is budgeted at \$119 million. However, since its 2011 adoption Denver officials have not appropriated sufficient funds to implement the plan. At the 2017 level of funding (\$2.2 million), it will take an estimated 40 years to complete the build out of the Denver Moves: Bicycles plan. Fortunately, a 2017 voter-approved bond sale promises to address this funding shortfall by increasing funding 10 times to over \$20 million per year, almost 27% of the total transportation budget, and enough to complete the build out in 10 years if such proceeds according to plan.

The bicycling staging efforts of Boulder and Denver municipal agencies are most apparent when examining the built environment, particularly bicycling facilities. For sake of comparison, bicycling facilities must be understood in relationship to the roadway/car facilities network and overall size of the community. Boulder's on-street bicycling facilities total 54.5 miles, almost 14% of its road network length. Though double the length of Boulder's, Denver's 106 miles of on-street bicycling facilities represents a significantly smaller portion of the city's road network, just shy of 5%. Both communities have enhanced their on-street bicycling facilities with several cutting-edge, some say radical, technologies, and roadway treatments. For example, both Boulder and Denver have

installed cycle tracks (Figure 3), bike priority signals, demand-activated traffic signals capable of detecting bicycles, and "green lanes" (Figure 3). Denver even coordinated a stretch of traffic lights along a popular bike commuter route to create a "green wave" where traffic lights are timed to accommodate traffic traveling 12 to 15 mph, a comfortable and efficient speed for most riders, and well



Figure 3: Cycle Track in Denver with Green Lane

below the posted speed limit of 25 mph. One of Boulder's most notable mobility features is its world-renowned off-street bicycling infrastructure. At over 82 miles in length, it is 50% longer than the on-street facilities and is almost 21% of the roadway network length. Many of Boulder's off-street bicycling paths run along riparian greenways and provide a car-free and aesthetically pleasant means of accessing several important destinations including downtown, the universities, numerous K-12 schools, as well as, several shopping centers and employment centers. Notably, Boulder's off-street bicycling facilities include 80 over/under passes⁹⁴ (Figure 4) that allow riders to avoid roadways and cars all together should they wish. Denver's off-street bicycling infrastructure totals



Figure 4: Boulder Underpass

approximately 113 miles, roughly equal to its on-street length and thus just shy of 5% of roadway total. Denver's off-street bicycling facilities are like Boulder's in that they largely follow the greenways of rivers, creeks and canals. And while the off-street network provides access to downtown and other important sites such as the Auraria Campus and the Cherry Creek shopping district, Denver's

much larger area and relatively shorter off-street facilities means that far smaller proportion of sites are served than in Boulder. In all, Boulder's bicycling facilities total 34% of its road network length, while Denver's bicycling facilities total is less than 10% of its road network length.⁹⁵

In addition to municipal transportation officials, several *quasi and inter*governmental organizations prominently participate in the staging of bicycling in Boulder and Denver. For example, both communities are a part of the same regional transportation district, simply known as RTD. Though primarily concerned with mass transit, because of the popularity of a bus/train-bike combination as a mode of everyday embodied mobility, 96 RTD administers a Bike-n-Ride program that provides encouragement and guidance for taking bikes on buses and trains, and for securing them at transit stations. Other civic influences on the staging of bicycling in Boulder and Denver come from several metropolitan planning organizations (MPOs), regional planning commissions (RPCs), and intergovernmental agreements (IGAs). Most importantly, the City of Boulder, Boulder County, and the City & County of Denver are members of the Denver Region Council of Governments (DRCOG, spoken as "doctor cog"). DRCOG fulfills state and federal requirements for MPOs and RPCs, provides coordination and technical assistance to members participating in IGAs, hosting promotional events, and planning regional infrastructure projects. 97

Civic stagers also include K-12 *schools, colleges, and universities*. In Boulder and Denver, most public K-12 schools engage in bicycling advocacy aimed at getting more students, staff, and faculty riding bikes more frequently more safely. For example, the Boulder Valley School District (BVSD) participates in the federally funded Safe Routes to School (SRTS) program that (among many services)⁹⁸ provides grants for infrastructural improvements to increase the safety of kids' trips to/from school such as non-motorized pathways and traffic signals. More so, BVSD funds an office dedicated to getting students to school in a way other than by car, hosts three "bike to school" promotional events per year, and even created its own *Trip Tracker* program that awards students with "tracker bucks" for bicycling to school.⁹⁹ The University of Colorado Boulder (CU Boulder) and Naropa University devote considerable resources to staging bicycling. CU Boulder's

Environmental Center and Parking & Transportation Services share ¹⁰⁰ the responsibility of staging bicycling on campus, and effort that has earned CU Boulder a gold level bicycle friendly campus designation from the League of American Bicyclists (LAB). Naropa University is also a recognized bicycle friendly campus (bronze level), thanks largely to its well-known Bike Shack. In Denver, the much larger and urban Denver Public Schools (DPS) primarily leaves it up to individual schools to stage bicycling in a manner best fitting the unique needs of their students. However, DPS supports schools' efforts with financial and technical guidance from several sources, including the City and SRTS. ¹⁰¹ Also in Denver, the Auraria Campus ¹⁰² and University of Denver both have bicycling programs, with DU's having earned it a bronze level bicycle friendly campus award.

The last type of civic stager is *law enforcement agencies*, particularly their officers. In Boulder, relevant law enforcement agencies include the City of Boulder Police, Boulder County Sherriff, and CU Boulder Police, as well as City and County Open Space rangers. In Denver, the Denver Police Department, Auraria Campus police, and Denver Parks and Recreation rangers are of relevance. These groups have a unique and important role in the staging of bicycling by enforcing regulations that guide the use of multimodal facilities and intended to keep riders safe. In Boulder and Denver, the city and campus police enforce the rules of the road, while sheriff's deputies and rangers from Parks and Recreation and Open Space patrol the off-street pathways and trails. To do so effectively, selected officers participate in specialized training by organizations such as the International Police Mountain Bike Association and patrol on bike to get out from behind the windshield and better understand the rider's perspective, if not experience it firsthand (albeit as police officer). Boulder and Denver civic stagers have also lobbied for, and

enacted themselves, several municipal and state ordinances intended to protect bike riders such as anti-"dooring" laws, and prohibitions against motorists driving or parking in bike lanes. Riders are also protected by state laws requiring a three-foot buffer when passing and making it illegal to harass riders.¹⁰³

Thus, in the ways just described, civic stagers take a leading role in the evaluation, engineering, and enforcement dimensions of bicycling staging, while playing a supporting role in the education and encouragement dimensions. In all, it is easy to see why civic stagers are necessary in the staging of bicycling. However, they are not sufficient. The next section looks at the complementary efforts of professional non-profit bicycle stagers. *Professional Non-Profit Stagers*

The next type of bicycling stager is what I refer to as "professional non-profit stagers" (PNPs). PNPs are bicycling advocacy organizations whose funds and staffing come primarily from the dues and donations of individual members, small businesses, large corporations, and philanthropic foundations. This means that PNPs are beholden to the donors who contribute their time, expertise, money, and other resources. Like civic stagers, professional bicycling advocates head most PNPs. However, unlike civic stagers, volunteers largely staff most PNPs. Both Boulder and Denver riders benefit immensely from the education and encouragement efforts of multiple professional non-profit bicycling advocates. Here I identify five sorts of professional non-profit stagers: (1) community bicycling organizations, (2), state and national advocates, (3) transportation management associations, (4) professional associations, and (5) charity rides and social groups.

Community bicycling organizations (CBOs) are distinguished from other PNP bicycling stagers by their organizational mission to educate and encourage local,

potential, and historically underserved riders.¹⁰⁴ The ideal type CBO exhibits unique characteristics. CBOs are largely volunteer run, accessible to people without money, and focused on teaching people how to ride safely, and fix bikes. CBOs provide free or low-cost bicycling services to the community such as recycling bicycles and parts, and "earna-bike" programs. CBOs advocate for the use of bicycles as simple and sustainable (i.e. an "appropriate") means of everyday embodied mobility, and personal enjoyment. Community Cycles is Boulder's premier CBO. Community Cycles recycles, repairs, and refurbishes donated bikes, makes used bicycles available to the community, and provides a safe, welcoming space for everyone in to learn about bicycle maintenance and repair. They also educate the community about bicycle safety and advocate for the use of bicycles as an affordable and sustainable mode of everyday embodied mobility.

Being larger, Denver benefits from the efforts of two principal CBOs, BikeDenver, and Bikes Together, as well as, a more focused Recycle Bicycle program. Together, these organizations provide overlapping and complementary programs, services, and events typical of CBOs. Sponsored by the City, Colorado Department of Transportation (CDOT), DRCOG, and several large corporations, BikeDenver frequently partners with the City to deliver variety of bicycling programs, services, and events. For example, BikeDenver offers urban commuter classes, hosts themed group rides, distributes no or low-cost bike lights, and promotes biannual Bike to Work Day events. Though BikeDenver does not operate a bike shop, a hallmark CBO service, it conducts "pop up" neighborhood bicycle repair programs throughout out the riding season. Complimenting BikeDenver's more bike commuter-oriented efforts, Bikes Together upholds bicycling, especially as an alternative to driving, as a viable means of addressing race and class-based wealth and

health disparities by empowering individuals to take control of their transportation, health, and sense of community. Bikes Together is much more neighborhood-oriented, volunteer-dependent, and dedicated to underserved and would-be riders than the City and corporate supported BikeDenver. Finally, Recycle Bicycles focuses on reclaiming, repairing, and redistributing discarded and donated bikes. Though much more narrowly focused than BikeDenver or Bikes Together, it provides an essential service typical of CBOs, and one offered in limited way by Bikes Together, and not at all by BikeDenver. Since 1994, Recycle Bicycles has reclaimed, repaired, and redistributed over 22,000 bicycles at no cost to inner city shelters, housing projects, and schools.

In addition to CBOs, Boulder and Denver are home to several *state and national bicycling advocacy organizations*. These organizations are similar to CBOs in that their primary mission is to get more people riding bikes, more frequently, and more safely. However, unlike CBOs, state and national bicycling advocates focus their education and encouragement efforts on riders well beyond the communities in which they are located. Thus, while the state and national bicycling advocacy organizations headquartered in Boulder and Denver add a small number of professional bicycling advocates to the community, the impact on the local bicycling stage pales in compare to the impact of civic stagers and local CBOs. Boulder is home to two prominent, nationally oriented advocacy organizations including People For Bikes and the International Mountain Bike Association (IMBA). And, unsurprising given its status as capital, the state-level bicycling advocacy organization, Bicycle Colorado calls Denver home.

Transportation Management Associations and Organizations (TMAs and TMOs)¹⁰⁵ are non-profit, member-run organizations that create and implement transportation

demand management (TDM)¹⁰⁶ plans and programs within a given area, such as a central business district (i.e. "downtown"), a university campus, or a transportation corridor such as U.S. Highway 36. TMAs/TMOs are typically public-private partnerships comprised of colleges and universities, medical centers, businesses. schools, residential and other organizations interested developments. in transportation management. With generous support from municipal agencies and other civic stagers, ¹⁰⁷ TMAs/TMOs work to provide transportation services, and coordinate the efforts of individual members to promote the efficient use of existing transportation resources and mitigate the ill effects of hyperautomobility within their jurisdiction, primarily for the benefit of member employees and customers, as well as, nearby residents. Like intergovernmental organizations such as DRCOG, TMAs/TMOs coordinate and support the efforts of member organizations to maximize their impact. However, TMAs/TMOs are much smaller in the scope of their services and area of impact, typically working within, instead of between, communities. TMA/TMO membership also is more organizationally heterogeneous than intergovernmental transportation organizations. 108 Like CBOs and other bicycling advocate organizations, TMAs/TMOs work to get more people riding bikes more frequently, and more safely. However, unlike CBOs and other bicycling advocacy organizations, for TMAs/TMOs, bicycling is but one of many means to an end; just one of several TDM strategies used to promote safe, efficient, and autonomous embodied mobility. Despite the secondary motive, TMAs/TMOs are important Boulder and Denver bicycling stagers due to their efforts to educate and encourage both dedicated and wouldbe riders. For example, Boulder Transportation Connection (BTC) provides bike maps and other "how to commute by bike" information, pays for bike-share (B-cycle)

memberships, operates a bike pool, and offers advice for recouping bicycling expenses from federal and state taxes under allowable business and commuting deductions. In Denver, the Downtown Denver Partnership and Transportation Solution are the TMAs responsible for downtown, Cherry Creek, and University Hill areas. Like BTC, these TMAs encourage people to ride as alternative to driving by promoting Bike to Work Day and establishing bike hubs where riders can secure their bikes and riding gear, purchase parts, make simple repairs, and sometimes even shower up after a long commute. U.S. highway 36 links Boulder and Denver, and includes an 18-mile, parallel "highway for cyclists". Unsurprisingly, Commuting Solutions, the TMO dedicated to the U.S. 36 corridor, education, and encouragement efforts focus heavily on assisting riders navigate the 36 Bikeway efficiently and safely.

Associations of professional transportation officials and practitioners (or simply, professional associations) are non-profit organizations whose membership primarily consists of municipal, urban and transportation planners, designers, and engineers. The primary mission of these professional associations is to foster peer knowledge sharing, provide technical expertise in policy development and standards setting, and support the professional development of members. These professional associations are one of the few non-profit stagers who have a pronounced influence on a community's built environment, manifest through licensure and certificate programs, as well as, the development of standards and guidelines, which are often adopted as formal policy by municipal and state transportation authorities. Like TMAs/TMOs professional associations see bicycling as an important element in a broader effort to realize an organizationally defined vision of everyday embodied mobility. The professional

associations found in my data, and thus relevant to the staging of bicycling in Boulder and Denver, include the American Association of State Highway and Transportation Officials (AASHTO), the National Association of City Transportation Officials (NACTO), and the Association of Pedestrian and Bicycle Professionals (APBP). In my fieldnotes and interview transcripts, these associations are noted as informing the design guidelines and engineering standards used by the City of Boulder, Boulder County, and Denver in the provisioning of bicycling facilities. From lane width, sign design, and signal timing to bicycle-friendly master plans and measures, the influence of professional associations is reflected in the policies, manuals, and databases of Boulder and Denver transportation officials. My data also show that professional associations' standards and guidelines are also at times coercive, and decisions are often based on such though City staff and leadership may desire an alternative.

The final type of professional non-profit bicycling stager I observed are the organizations that stage what I refer to as *charity rides and bicycle clubs*. These organizations¹¹⁰ stage rides that are distinguished from other encouragement rides such as Bike to Work Day, Boulder's B360 and other civic celebrations of bicycling in that participants are typically required to register or join, make a donation, pay an entry fee, or membership dues. Here again, bicycling stagers use bicycling as a means to another end. Charity rides and bicycling clubs intend to raise money for "worthy" causes¹¹¹ and facilitate sociability among group members, many of whom are often members of marginalized, and/or historically underserved demographic groups. For example, the University of Colorado Boulder's Buffalo Bicycle Classic raises money for scholarships, while fees and donations collected by Denver's Ride the Rockies fund several noteworthy

causes throughout Colorado. Community Cycles' WT*F group, the Major Taylor Cycling Club, and the Front Rangers Cycling Club, as well as, Square1 Cycling explicitly support members of the LBGTQ community, African-Americans, "at-risk" urban youth, and women riders respectively. In addition to encouraging unlikely riders, many bicycling clubs, such as the appropriately named Out-Spokin' Bicycling Club, use bicycling as means of political expression, advocating not only for bicycling, but also for other social justice causes. The charity rides and social rides available to Boulder and Denver riders are numerous, varied in their themes, and ever changing - so much so, that a valuable service provided by bicycling business websites is to promote and keep an updated list of charity rides and bicycling clubs. For example, BikeState38.com, 112 "Colorado's Cycling Resource," lists over 100 charity rides scheduled for May through September 2018, and 16 bicycling clubs from which Boulder and Denver riders may choose to join. Bicycling officials with Denver state that there are literately hundreds of bicycling events every year, with over 30 being listed as "signature events" featured by the City and used to build its reputation as a bicycling friendly city. Boulder officials report similar numbers of bicycling events and further note that they work to ensure that large events are scheduled at least quarterly, ideally monthly, throughout the riding season, ensuring that there are more bicyclingthemed festivals, parades, parties, and opportunities to "be a bicyclist" in Boulder and Denver than a single rider could ever hope to participate in.

While civic stagers take the lead on the evaluation and planning, engineering, and enforcement fronts, professional, non-profit bicycling organizations (PNPs) take a leading role in the education and encouragement of both dedicated and potential riders in Boulder and Denver. Additionally, professional nonprofit bicycling advocates play an important

supporting role in the evaluation and planning, design, maintenance, and regulatory efforts of civic stagers, in all making them as essential to the overall staging of bicycling as civic stagers. For example, Community Cycles in Boulder helps to organize volunteers in support of Boulder's annual rider count, as well as solicit community input, and make such known to civic stagers by speaking in public meetings, publishing opinion pieces in the news, and via social media. 113 Other PNPs contribute to the effort to build, maintain, and repair bicycling facilities, with both monetary and in-kind donations. 114 Indeed, most of the outstanding bicycling amenities found in Boulder and Denver, those that really distinguish the cities as top bicycle friendly communities, are, at least in part, the result of PNP stagers. For example, Boulder and Denver's renowned bicycle share, B-cycle, 115 with 43 stations and 300 bikes in Boulder, and 89 stations and over 800 bikes in Denver, is a PNP stager. Other PNPs provide public "fix-it stations", and a large variety of high quality bike storage facilities including sheltered parking, bike lockers, bike corrals, and valets for special occasions and large events. Denver has planned several (and built a few) "bike hubs" that will make lockers and showers, tools and supplies, and nearby intermodal connections available 24 hours a day. 116 Thanks to the educational and encouragement efforts of PNPs, Boulder and Denver feature a number of rare recreational bicycling facilities including BMX tracks, cyclocross courses, mountain bike parks, pump tracks, bicycle-accessible skate parks, and signed recreational loop/routes. 117 Finally, PNPs even supplement the safety and law enforcement efforts of sheriff's deputies and park rangers though the formation of citizen patrols, and by encouraging members to ride in safe, courteous, and sustainable ways. 118

The Bike Biz

The third primary type of bicycling stager is the bicycling business. ¹¹⁹ The "Bike Biz" is comprised of for-profit organizations that design, manufacture, and who market, sell, repair, and/or rent bicycles, bicycle parts, bicycle accessories, bicycling gear, apparel, accessories, as well as, the production of bicycling media, and experiences. As for-profit organizations, the Bike Biz is fiduciarily beholden their customers, and in a few cases, stockholders. ¹²⁰ I further identify five different sorts of bicycling businesses: (1) bike stores, (2) bicycling trade and industry associations, (3) bicycling guides, tours, and events producers (4) competitive clubs, teams, and races, and (5) bicycling media and marketing.

The first and most readily observed sort of bike business are *bike stores*. Bike stores are for-profit, specialty bicycle retailers dedicated primarily to selling bikes and bike-related equipment. Bike stores are distinguishable from large "big box", or "department store" retailers such as Wal-Mart and REI that sell bikes along with many other products. Bike stores are also distinct from bike shops (places to build and repair bikes) thought they are often co-located. Unlike CBO bike shops, those located in bike stores are typically used exclusively by the store's mechanics and not open to the public. From its inception, bicycling has been a meaningful symbol within mainstream consumer culture, for better and for worse (Furness 2010:17-19, 19-23,160; Turpin 2018). More so, signifying the purpose and meaning of one's bicycling is accomplished largely through the display of status symbols such as one's bike, bag, and attire. In remembering to think dramaturgically, these bike businesses are the analogue to a theatrical production's costume and prop designers, and thus play a very important role in staging bicycling,

particularly the normative image of who rides bikes, for what purposes, and why. Boulder and Denver are very well endowed with bike stores, BikeState38.com counts 17 in Boulder, and BikeLife Cities lists 40 in Boulder County. In Denver, BikeState38.com counts 30 bike stores, and 207 reviews of bike stores in the Denver area. In all, this means there is about 1 bike store per 7,000 residents in Boulder, and about 1 per 19,000 residents in Denver, both of which are well above the national ratio of 1 bike store per 86,000 residents.¹²¹

The next sort of bicycling business is bicycle trade and industry associations. These associations are primarily funded by member organizations' dues, most of whom are bicycling-related designers, manufacturers, and wholesalers that profit from the success of retail bike stores. Though many bicycle trade associations are legally organized as 501(c)6 non-profits, I discuss them here because their operating funds come directly from their for-profit members, and their "bottom line" mission is to increase their profits. Two prominent bicycling trade and industry associations that call Boulder home, the Bicycle Product Supplies Association (BPSA), and the People For Bikes Coalition, exemplify the role of bicycling trade and industry associations in the staging of bicycling. The BPSA "leads industry initiatives in legal and governmental affairs and safety issues, is the leading resource for bicycle statistical data, and provides regular networking and educational forums for members." The People For Bikes Coalition states it more concisely: "protected bike lanes mean business." 122 Like their state and nationally focused PNP counterparts, bicycling trade and industry associations focus their staging efforts beyond their host communities and thus affect the staging of bicycling in Boulder and Denver indirectly, if in no other way than to bring a degree of prestige to their host communities, images of which are frequently used in marketing and branding campaigns. 123

Another sort of bicycling business is for-profit *bicycling guides, tours and events producers* that afford riders unique bicycling experiences. Riders in Boulder and Denver can hire a guide to take them on excursions around town, or around the globe – from slow-rollin' brewery rides, and historic neighborhood tours, to exclusive excursions to exotic locales such as the vineyards of Argentina and backcountry of Hawaii, there is no shortage of guided bicycling trips and tours in which riders might participate.¹²⁴

Competitive cycling teams and races are Bike Biz stagers that afford a rider the opportunity be a "cyclist," 125 that is, if they can make the cut. Compared to the aforementioned bicycle clubs, cycling teams are much more exclusive, competitive, and expensive to join due to coaching, race fees, and league membership. Cycling team membership must be earned through competition, and not just purchased. 126 And, unlike charity rides, competitive and professional races are for elite riders only, who must qualify to compete for prizes including money. Many elite, Olympic, and professional cyclists, teams, and races call Boulder and Denver home. For example, the University of Colorado Boulder's cycling team has produced over 60 individual National Champions and taken home 12 Team Event National titles. Additionally, they have won the Overall Team Omnium at 12 National Championships, and many CU Boulder racers have gone on to the professional ranks after graduation and achieved success at the highest level of the sport. 127 Cycling Olympians Mara Abbott and Taylor Phinney, were born, live, and train in Boulder. And multi-year Tour de France contenders, Tyler Hamilton and Tejay Van Garderen call Boulder home, for at least part of the year, as do all members of the EF Education First–Drapac p/b Cannondale pro cycling team, which is based in Boulder, though they compete around the globe. Finally, Boulder and Denver have long hosted numerous elite amateur and world-class cycling races, most importantly including the Red Zinger/Coors Classic, the USA Pro Challenge, and the Colorado Classic.

Though the number of riders who participate in charity rides and belong to bicycle clubs is far greater than those who are members of teams and compete in races, the latter play outsized role in the staging of bicycling in that the cyclists and teams are an important part of the *marketing of cycling* and bicycling more generally. Like all professional sports, professional cycling is all about increasing the profits of team sponsors and the bicycling industry in general. Through media magnification, cycling teams and races encourage riders of all abilities, even if just as spectators and fans, and thus play a very important role in staging bicycling, particularly the normative image of who rides bikes, for what purposes, and why. Notably, five of the top bicycling-related magazines in North America are produced in Boulder.¹³⁰

DIY Bicycling Activists

The fourth and final type of bicycling stager identified in my analysis is DIY bicycling activists. They are individuals and groups that want to see more people ride bikes more frequently and more safely, and take non-institutionalized, unsanctioned, and even illegal approaches to realizing such. I use the terms activist / activism to distinguish the institutionalized and sanctioned efforts of civic stagers, professional bicycling advocates, and bicycling businesses, from the staging efforts of DIY bicycling activists. Bicycling advocates and activists share a common goal but take different approaches to achieving it. I take the DIY ("Do It Yourself") moniker from Zack Furness' (2006, 2010) descriptions

of "DIY bike culture". As Furness explains, DIY is an idea bigger than bicycling. DIY is used describe a large number of cultural practices, philosophies, ethoses, and lifestyles that emphasize fixing/building/altering (as opposed to purchasing), as an expression of self-reliance, which in the case of bicycling is about autonomous embodied mobility and a re-envisioned image of automobility that does not involve a car. The DIY ethos emphasizes self-empowerment, creativity, and above all else, participation (Furness 2006:38). DIY is also meant to connote "an ethic born in reaction against a dominant society that considers culture primarily in terms of a profit-generating, commercial enterprise" (Duncombe 2002:219). Bicycling as an alternative to driving a car conveys this DIY counter-cultural vibe, by "actively forging passionate counter-narratives of mobility that challenge the automobile's hegemonic status as king of the road" (Furness 2010:141). Therefore, I use the term "DIY bicycling activist" to communicate a full understanding of this creative, self-empowering, and counter-cultural approach to bicycling staging. I also use the terms "DIY" and "activist" individually to hint at subtle differences between specific DIY bicycling activist staging efforts. 131 According to the fiduciary distinction I've used to distinguish types of bicycling stagers from one another, a key characteristic of DIY bicycling activists is that unlike civic stagers, professional nonprofit bicycling advocates, and the Bike Biz, DIY bicycling activists are generally selffunded, and thus have little to no fiduciary responsibility to other individuals, groups, or organizations. This allows for a much greater latitude in the bicycling staging methods used.

Like other bicycling stagers, DIY bicycling activists engage in a variety of approaches to getting more people to ride bikes more frequently and more safely, and

play a unique, supporting role in enforcement, education and encouragement efforts. Due to the non-institutionalized character of DIY bicycling activism, in this section, rather that discussing the sorts of groups and organizations that stage bicycling, in section I will discuss DIY bicycling activism in terms of the "Five Es", specifically (1) DIY enforcement, (2) DIY education, and (3) DIY encouragement efforts.¹³²

The purest examples of DIY bicycling activism that I observed were instances of *DIY enforcement efforts*. For example, rather than a police officer ticketing a transgressing driver, DIY enforcement might take the form of an unapproving stare, an obscene gesture, a slap on the fender, or more. One interview participant told stories of wearing a holstered U-lock so that it was readily accessible for when drivers needed to be "disciplined", which was typically achieved by breaking the offending driver's side mirror. Or, as Ronnie another DIY activist said, "I'll be that asshole biker if it saves someone from being hit and seriously hurt or killed". While the acts of individuals often fail to impact rates of riding or others' riding experiences, research suggests that DIY enforcement efforts are prominent in the minds of other riders and drivers, perhaps even unduly so (Aldred 2013b; Horton 2007; Johnson et al. 2013; Skinner and Rosen 2007), 133 and thus here qualify as staging efforts, even if the acts of individuals.

DIY bicycling education efforts emphasize reuse, repair, and self-reliance while eschewing the "built-in obsolesce and opaque product design" of corporate bicycle and parts manufacturers such as Shimano (Furness 2010:153). Of the bicycling education efforts observed in Boulder and Denver, "earn-a-bike" and "fix-your-bike" type programs¹³⁴ most closely exemplified the DIY ethos, by providing participants with used

bikes, as well as, as shared space, tools, and skills to keep them rolling at no or low cost.¹³⁵

Finally, *DIY encouragement efforts*, those events (all which are group rides) that are meant to celebrate and inspire riders, vary from the notoriously daring and deviant, to the merely mischievous. In Boulder and Denver, the DIY encouragement efforts observed in the course of my research for this project include (a) alley cat races, (b) Critical Mass rides, (c) the World Naked Bike Ride (WNBR), and (d) Cruiser rides. In the following paragraphs, I will elaborate on each.

Alley cat races are unsanctioned events in which participants, historically bicycle messengers, compete to be the first to reach several assigned checkpoints. Besides checking in at the designated locations, alley cat races have few, if any, additional rules. 136 Racers chose their own route, and rarely, if ever, adhere to the rules of the road. Like any competition, participants engage for prizes, prestige, and the thrill of the event. Alley cat races are not for your everyday rider and encourage a segment of riders that find charity rides, club rides, and officially sanctioned races unappealing. While a handful of intermittent alley cat, races persist in Denver, 137 I have found no evidence of one occurring in Boulder since September 2011. 138 One research participant, Angelina a twenty-something, white female and regular Denver alley cat participant, believes that as of late, the races are "fizzling", and said that the last alley cat race she rode in "bombed". And, as a former bicycle messenger and alley cat participant, I agree. 139

Critical Mass, perhaps the most notorious DIY bicycling activist event, is described by historian Chris Carlsson¹⁴⁰ as a "defiant celebration" of bicycling where riders come to "celebrate their choice to bicycle, and in so doing have opened up a new kind of social

and political space" (Carlsson 2002:5).141 More politically oriented and convivial than alley cat races, Critical Mass rides are instances of collective, direct action in protest of hyperautomobility (Furness 2007, 2010). Critical Mass participants ride together in a large group, proceeding with little concern, if not outright antipathy, for the rules of the road, or car traffic. 142 Part party, and part protest, "Critical Mass creates a convivial environment where dissent is palpable and visible" (Furness 2007:113), and serves to encourage a type of rider for whom bicycling is as much a radical political statement, as it is fun. To the best of my knowledge, Critical Mass rides in Boulder have always been infrequent, poorly attended, as lacking in radical zeal. 143 The last, ostensible, Critical Mass ride I observed in Boulder occurred on June 29, 2007, and involved fewer than a dozen riders, including myself. To the contrary, throughout the late 1990s and 2000s Denver regularly saw Critical Mass rides of 20 to 50 rides and that on occasion would surpass 100 participants. The August 27, 2008 Critical Mass ride coincided with the Democratic National Convention in Denver, drawing an estimated 200 to 300 participants, making it the largest Critical Mass ride in Colorado to date, as well as the last significant Critical Mass ride to occur in Denver. Like other large rides,144 the 2008 DNC Critical Mass provoked the ire of the police and ended with the ticketing, arresting, and impounding the bikes of dozens of participants. 145 In April 2012, after an almost four-year hiatus, Denver Massers tried again, and like earlier Critical Mass rides, this one too ended in tickets, arrests, and impounded bikes after the ride proceeded down Denver's pedestrian-only 16th Street Mall. 146 Since this time, my efforts to observe a Critical Mass ride in Boulder or Denver have come up short. There was a ride planned for March 27, 2015, but I was unable to find the participants when I arrived at the announced starting place. An

associated Facebook event page (through which I learned of the ride) reported that only three people participated, and no evidence of later rides have been found during this research. This leads me to believe that presently, Critical Mass in Boulder and Denver is dead.

Similarly, deviant and DIY,147 is the World Naked Bike Ride (WNBR), an international campaign to "end indecent exposure to cars." WNBR participants ride "as bare as they dare"148 often with anti-car, anti-oil, and environmentalist slogans decorating their bodies and libertine costumes. Much like Critical Mass, WNBRs occur in public spaces, and frequently but not necessarily, disrupt car traffic, if for no other reason than rubbernecking drivers and gawking pedestrians. 149 Given the carnivalesque attire (or lack thereof) of the participants, WNBRs have a festive atmosphere, drawing in riders that are otherwise not seen at bicycling encouragement events. For a short time, the WNBR was annual event in Boulder and Denver. 150 Between 2006 and 2009, Boulder and Denver each hosted annual WNBRs. In 2009, after Boulder police warned participants that they would be strictly enforcing local and state indecent exposure laws, potentially landing participants on the state sex offender registry, the number of participants fell precipitously, ultimately resulting in the end of the Boulder ride. Afterward, Denver continued to host combined WNBRs, which like earlier rides, were largely peaceful events free from police intervention, due largely to participants' creative use of strategically located socks, pasties, body paint and other accessories. 151 Though efforts to organize WNBRs persisted in Boulder and Denver until as recently as 2016, there is no evidence of one occurring since 2013.

On the tamer end of the DIY bicycling activist spectrum of encouragement events are the Denver Cruiser Ride (DCR), and Boulder's Happy Thursday Night Cruiser Ride (TNCR). Throughout the riding season, Cruisers meet on a reoccurring night of the week (Wednesday in Denver, Thursday in Boulder), usually at a park, but often at a bar or restaurant, before festively proceeding through the streets and pathways, ringing bells, honking horns, and joyously shouting "Happy Thursday!" or "Happy Hump Day!" Each ride has a theme on which Cruisers base costumes, and which is often (though not always) risqué or otherwise adult-themed in nature. Since most Cruiser rides continue well after dark, bikes and costumes frequently include luminous décor, greatly adding to the festive air of the ride. Like their more radical DIY counterparts, Cruiser rides encourage riders that more institutionalized staging efforts fail to engage.

Though civic stagers, professional non-profit bicycling advocates, and the Bike Biz embrace Cruiser rides today, this has not always been the case. As recently as 2013, The Denver Cruiser Ride and the Happy Thursday Cruiser Ride looked, and were treated, more like Critical Mass and World Naked Bike Rides, than the sanctioned and sponsored events they are today. For years, frequent and flagrant violations of rules of the road, and a disregard of drinking laws, ¹⁵⁴ made Cruiser rides the targets of police intervention, who simply joined the open rides, and cited offenders by the dozens. ¹⁵⁵ However, over the past 5 years or so, Boulder and Denver Cruiser rides have evolved in response to police crackdowns, and now look less like Critical Mass and WNBRs and more like the charity and club rides staged by municipal officials and professional non-profit bicycling advocates. In doing so, they have won their approval. First and most importantly, Boulder and Denver Cruiser rides have cracked down on problem behavior, primarily by

encouraging informal social control through a "you're going to get the whole thing shut down" discourse. Responsible drinking, adherence to the rules of the road (using lights and obeying traffic signals in particular), and not impeding traffic is now officially "how we role". 156 Boulder and Denver Cruisers also maintain an apolitical air and distance the rides from their more radical DIY counterparts by eschewing the traffic impeding techniques of Critical Mass rides, and the vehement anti-capitalist rhetoric of WNBRs. 157 Finally, as a result of these efforts, Boulder and Denver Cruisers earned the support of municipal and professional non-profit bicycling advocates¹⁵⁸ and business sponsors. This is particularly true of the Denver Cruiser Ride. While cracking down on rude, reckless, and scofflaw riding has earned the Happy Thursday Night Cruisers the approval of municipal and professional advocates in Boulder, they have not taken on sponsors or commodified their ride in the way that the Denver Cruiser Ride has. Not only has DCR taken on business sponsors (or "partners"), they now sell memberships and merchandise that interestingly suggests ambivalence on the part of the organizers, such as admission to their annual "elitist bourgeoisie cocktail party" and "capitalist pig-dog" t-shirts. 159 DCR organizers even went as far as to create a non-profit bicycling advocacy organization, "Bike City", in response to the realization of an "obligation to give more back to the community than simply focusing on fun and bikes". 160 Most importantly, the biggest difference between Cruiser rides and their more radical counterparts is that Cruiser rides are still popular! Both the Happy Thursday Cruiser and Denver Cruiser rides regularly draw crowds in the hundreds, and the Denver Cruiser Ride has become so popular that even with the support of sponsors, portable toilets, insurance, and other expenses have become so great, that a reduction in number of rides (from weekly to monthly) was necessary to continue

accommodating everyone free of charge (in true DIY-fashion the DCR does not charge participants).

However, the popularity of the Cruiser rides belies a larger trend. When looking at the staging of bicycling in Boulder and Denver overall, the frequency and scope of DIY bicycling activism has markedly decreased over the last 10 to 15 years. For example, the demise of Critical Mass and the World Naked Bike Ride represents the loss of an important DIY activist effort to enforce the rights of riders and educate drivers through direct action, reminding them "we're not blocking traffic, we are traffic!" (Carlsson 2002; Furness 2007, 2010). Beyond Critical Mass rides and WNBRs, bicycling protests¹⁶¹ in Boulder and Denver are few-and-far between. The only non-Critical Mass/WNBR bicycling protest observed (or known to have occurred) during this study was barely a DIY activist event. Organized by Community Cycles, Boulder's professionally run CBO, and recipient of City contracts, approximately 100 riders showed up to "mourn" the planned removal of a stretch of protected bike lanes on Folsom Street by repeatedly riding up and down a segment of the road, chanting pro-bicycling (but not necessarily antidriving) slogans. 162 However, unlike many DIY activist events, Critical Mass in particular, and at the urging of the organizers, the Folsom Street protesters obeyed traffic signals, used the bike lanes (that were the focus of the protest) and crosswalks when riding their loop. There were no confrontations with drivers or police, and except for the large number of riders using the crosswalk (at which drivers must yield by state law), the protestors did not impede drivers. The end of Critical Mass and WNBR in Boulder and Denver thus signifies the loss of distinctly DIY activist efforts to educate riders, and non-riders alike, about the benefits of bicycling as an alternative to driving, as well as the perils of "the regime of automobility" (Bohm et al. 2006).

Also representative of the downward trend in DIY activist staging is the professionalization of Boulder and Denver CBOs and bicycling advocacy in general. For example, between 2012 and 2015, the DIY activist oriented CBOs Derailer Bicycle Collective, The Bike Pit, and Bike Depot closed and in their place, the professionally run Bikes Together and commuter-oriented BikeDenver opened. While the services offered overall to Denver riders have expanded, especially their retail services, DIY-inspired programs such as with the "earn-a-bike" and "fix-a-bike" programs, have been de-emphasized. Alley cat races still occur on rare occasion, but without a steady infusion of bicycle messengers and their bravado, alley cat races have become anemic, and lost much of their appeal to thrill-seeking riders. Finally, though Boulder and Denver Cruiser rides are as popular as ever, these DIY-inspired encouragement events have been cleaned up, sanctioned, and sponsored, to the point that some (former) participants believe they no longer adhere to the DIY ethos and aesthetic.

The reason for the downturn in DIY activism in Boulder and Denver¹⁶⁶ is a question that needs to be more thoroughly explored than space here permits. However, even limited observations suggest that the decline in DIY bicycling activist staging efforts *in general* is an unintended consequence of the staging efforts of civic stagers, professional non-profits, and the Bike Biz. Though far from perfect, institutionalized staging efforts are sufficient to make the subversive, confrontational, and illegal tactics of DIY activist stagers look unnecessary and selfish in the court of public option,¹⁶⁷ eroding support from institutional stagers and siphoning off potential DIY event participants.

Whether the decline of DIY activist bicycling staging in Boulder and Denver is a good for bicycling advocacy is difficult to determine empirically (Furness 2010:100,103), and thus largely a matter of perspective. Interview participants in support of DIY activist staging say that anything that gets more people on bikes more frequently and more safely is a good thing. They note that DIY staging appeals to a sort of rider that institutionalized staging does not reach. More so, DIY bicycling activist supporters suggest that staging efforts like Critical Mass and WNBR serve as a "radical flank" (Furness 2010:100, Hains 1984)¹⁶⁸ and makes institutionalized bicycling advocacy efforts look moderate, and more likely to be accepted by mainstream stagers and the public. However, most of my interview participants disagreed, most importantly professional bicycling advocates. They believe that DIY activist staging efforts, especially those that lead to confrontations with drivers or the police, work against bicycling advocacy, and cause harm to other riders. They argue that the number of riders participating in DIY bicycling activist events is small,169 and likely less than the number of riders that turned off to bicycling due to confrontational DIY staging events. Also, confrontational DIY activist tactics alienate institutionalized stagers who would otherwise be valuable allies in a common cause. Confrontational and overly deviant DIY bicycling activist strategies associate bicycling with the "fringe" (as one City of Denver bicycling planner referred to Critical Mass participants) and subverts efforts to normalize bicycling. 170 In turn, mainstream, lawabiding riders feel unfairly stereotyped and endangered 171 - "they give us all a bad name" was a statement I heard repeatedly in interviews and discussions on the topic.

Nonetheless, based on what I've learned during this study, I believe that the staging efforts of DIY bicycling activists can potentially play an important role in the

staging of bicycling in Boulder and Denver, and thus the downturn in their staging efforts may have negative, unintended consequences for Boulder and Denver bicycling advocacy overall. To complement institutionalized bicycling advocacy efforts, DIY activist staging efforts need to avoid aggressive and antagonistic interactions with drivers and police, and not put participants at risk of coming away from a ride with a criminal record. A ticket is tolerable, perhaps even a catalyst for the formation of an "activist identity" (Horton 2002), but the consequences of being arrested and a criminal record is too great for the majority of riders to risk. Fortunately, DIY bicycling activism does not require reckless or felonious actions. Yet to be effective, these restrictions on behavior 173 must be balanced with remaining "weird" 174 enough to serve as a "radical flank". Peaceful, (mostly) law abiding DIY activist staging efforts such as a more courteous Critical Mass¹⁷⁵ that causes limited inconvenience to drivers, a "PG-13" World Naked Bike Ride, 176 and the Cruiser rides as they are now, 177 draws attention to the rights and needs of bike riders, the perils of hyperautomobility, as well as how much fun bicycling it can be, while avoiding the alienation and stigmatization that come from more confrontational events. More so, DIY activist events bring together riders of similar disposition, those not engaged by institutionalized staging efforts, in a convivial atmosphere, affording a rare interactional opportunity to realize an "activist" identity (i.e. a stage on which to present one's activist self). Along with Critical Mass, WNBR, and Cruiser rides, small, DIY-oriented neighborhood bike shops, both for and non-profit, 178 can also serve as an important complement to city-wide CBOs, especially those that serve historically underserved and disadvantage groups, complement a broader, mainstream approach by organizations that tend to appeal more to privileged, urban commuters and recreational riders (Furness

2010:159).¹⁷⁹ Indeed, there is a still a role for DIY activists in the staging of bicycling in Boulder and Denver, particularly as advocates for countercultural and historically underserved riders.¹⁸⁰

CHAPTER SUMMARY

In reflecting on the staging of bicycling from above in Boulder and Denver, several insights arise. As I noted at the beginning of this chapter, if we are to appreciate bicycling as a presentation of self, we need to know about the stage, the stagers, and the staging efforts that make possible the presentations of one's riderself. Though Boulder and Denver are not representative of U.S. communities in general, what has been observed and reported in this chapter is of value insomuch as social processes are nonetheless generalizable (Irvine 2000, Stolte, Alan and Cook 2001, and see Chapter 3 for additional details). It is assumed that bicycling stagers might use this description as a template to appraise the bicycling staging efforts being made in their communities and consider not only what sorts of stagers exist and their efforts, but also the relationships between them. The information presented in this chapter is summarized in Table 2.

Table 2: Boulder and Denver Bicycling Stagers and their Staging Efforts							
Stagers / Staging	<u>Evaluate</u>	Engineer	<u>Enforce</u>	<u>Educate</u>	Encourage		
Civic Stagers	Х	Х	Х	(x)	(x)		
Non- Profit Advocates	(x)	(x)	(x)	X	Х		
The Bike Biz				Х	Х		
DIY Activists			*	(x)	*		

X – plays a leading role

(x) – plays a supporting role

* – plays a marginal role

Table 2 makes it clear that there a great deal of overlap efforts of the various types of bicycling stagers, in the education and encouragement dimensions especially. This

results in a rich diversity of staging efforts, including many aimed at historically underserved, and non-conventional, or "fringe", bike riders. This overlap generally takes the form of cooperation¹⁸¹ between the different types of stagers, the institutionalized ones in particular, due to the shared goal of getting of more people to ride bikes more frequently and more safely. However, unlike dramaturgical staging, bicycling stagers are not coordinated under the supervision and guidance of a leader analogous to a theater director or movie producer. This dynamic results in redundancies and conflict between stagers, particularly between civic stagers and DIY bicycling activists, and works against advocacy efforts overall.

Table 2 also shows that civic stagers and professional advocates have the most comprehensive roles in the staging of bicycling from above, engaging in all five dimensions of advocacy. The Bike Biz has the most limited role in terms of the number of dimensions, but as mentioned, plays an essential co-leading role with professional advocates in the education and encouragement dimensions through the sponsorship of education programs and encouragement events. Due in large part to conflict with civic stagers, DIY bicycling activists play a marginalized, yet potentially important, role in the staging of bicycling in the enforcement and encouragement dimensions, as well as, a limited yet sanctioned role in the education dimension, primarily under the auspices of DIY-leaning CBO's "earn-a-bike" and "fix-a-bike" programs.

Lastly, Table 2 illustrates that education and encouragement dimensions are the most commonly engaged in staging efforts. Of note are group rides, an encouragement effort used by every sort of stager – from civic celebrations such as Bike to Work Day to DIY activist events like Critical Mass – group rides are a ubiquitous approach to

encouraging every sort of dedicated and would-be rider. Interestingly, educational and encouragement efforts are non-structural. While such efforts most certainly get more people on bikes more frequently, and more safely, they do not address the fundamental built environmental and social-structural impediments to riding a bike as an alternative to driving a car. Rather they equip and urge riders to participate voluntarily in a fundamentally unchanged and unjust system of hyperautomobility. This "carrots" instead of "sticks" approach to bicycling staging has been observed elsewhere (Piatkowski, Marshall and Krizek 2017), and underscores the importance of the leading role civic stager take in planning, building, and regulating the stage of embodied mobility.

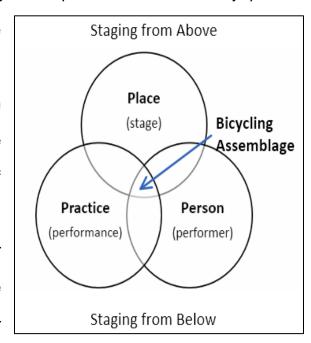
Based on the information I've presented here, if the goal of more people riding bikes more frequently and more safely is to be realized, it will not be through the education and encouragement efforts of professional advocates, the Bike Biz, and DIY activists. Rather, efforts to fundamentally change the built and social-structural environments, the role of civic stagers, will be essential. Furthermore, bicycling stagers need to better coordinate their efforts, reduce the redundancy and conflict between them, and find a way to better integrate the efforts of DIY activists. After all, one must wonder, with all these efforts, why is bicycling, especially as alternative to driving a car, still so unpopular relative to other modes of embodied mobility? I will further explore this question, the advocate's question, in subsequent chapters.

Chapter 5: Staging Bicycling from Below I – Rider **PRACTICES**

As noted in the Introduction to this dissertation, my interest in this project started with the talk of "bicyclists" that is commonly found in the news, entertainment and social media, as well as in official reports and everyday discourse. I questioned whether an essential, or even distinctive, "bicyclist" identity and/or self-conception existed. And presuming that it did, I further wondered, just who, or perhaps what, is a bicyclist? Beyond riding a bike, what makes someone a bicyclist in the eyes of others and/or themselves? Is there more to being a bicyclist than riding a bike?

Building on the discussion of "staging from above" and importance of place in Chapter 4, in the next two chapters I present the results of my effort to operationalize the "staging from below" aspects of Jensen's staging mobilities framework, as they pertain to bicycling by asking the question "who is a bicyclist?" I preset the answers to my question

in the form of a typology of people who ride bikes that consists of six ideal types of Riders, distinguished from one another by seven themes of bicycling practice and performance (see Table 3). Here in Chapter 5, after a brief review of the existing literature involving typologies of bike riders, I discuss the first four of several themes of data that focus on the bicycling practices of PWRB. Then in Chapter 6, I continue to refine the typology of Riders by Figure 5: Bicycling Assemblage



exploring the social psychological and interactional aspects of Riders embodied performances and the ways in which they distinguish types of Riders from one another.

RIDER TYPOLOGIES

Scholarly efforts to address the question of "who is a bicyclist?", and other efforts to typologize people who ride bikes have come exclusively from transportation and bicycling scholars (Damant-Sirois et al. 2014; Dill and McNeil 2013, 2016; Gatersleben and Haddad 2010; and others). Efforts include those that categorize riders based on their (1) expressed level of comfort and riding proficiency, as well as (2) the frequency and regularity of their riding. Others, sort riders into categories based on their (3) stated purpose, meaning, and/or motivation for one's own riding (or lack thereof). A final type of typology categorizes people (both riders and non-riders) based on their perceptions (values, beliefs, and norms) regarding bicycling and people who ride bikes in general. In the following section, I elaborate and provide examples of each sort of typology.

One of the most common and long-standing sorts of typology categorizes riders by their level of comfort and/or proficiency at riding a bike. For example, early reports from FHWA in 1994 and guidelines from AASHTO in 1999 typify bike riders as: "advanced bicyclists", "basic bicyclists", and "children", basing the distinctions on the ability to "operate under most traffic conditions" versus the unwillingness to "operate in traffic without special provisions for bicycles". Another early comfort/proficiency typology, Herlihy 2004, categorized riders as "timid toddlers", "wary wobblers," "go-it-gracefuls", and the "fancy few". More recently, a popular typology developed by the City of Portland, OR describes "four types of cyclists" as "the strong and the fearless", "the enthused and confident", "the interested but concerned", and the "no way, no how!" (Dill and McNeil

2013, 2016; Geller 2006). Unlike the FHWA/AASHTO and Herlihy's (2004) categories, the Portland "four types" typology makes room for non-riders.

Another popular way of typifying people and their everyday embodied mobility is according to the frequency and regularity of their riding. Examples include typologies that categorize individuals as "non", "part", and "full time" riders (Heinen et al. 2010); "potential", "occasional", "frequent", and "regular" riders (Winters et al. 2011); "noncyclists", "non-work cyclists", "all-around cyclists" and "commuter cyclists" (Kroesen and Handy 2014), and as "frequent/all conditions", "regular/average conditions", and "occasional/good conditions only" riders (Larsen and El-Geneidy 2011) One typology even includes seasonal categories, and categorizes riders as "winter cyclists", "summeronly cyclists", "infrequent cyclists", and "never cyclists" (Bergstom and Magnusson 2003).

The purpose, motivation, and/or meaning of one's bicycling serve as another organizing principle around which many typologies have been formed. One of the first, and most relevant, scholars to discuss rider types based on purpose, motivation, and meaning is Mette Jensen (1999). He distinguishes three categories of cyclists: "cyclists of heart" who voluntarily ride, "cyclists of convenience" who ride for practical reasons, and "cyclists of necessity" who ride because they are unable to drive. Jillian Anable (2005) extends Jensen's insight on car dependency, and expands the typology to include non-riders, most prominently car drivers. Based on a cluster analysis she identifies six relatively stable groups and names each to represent its unique set of psychographic characteristics. Her categories included: "discontented drivers", "complacent car addicts", "no hopers", "aspiring environmentalists", "car-less crusaders", and "reluctant riders". 184
Damant-Sirois, Grimsrud, and El-Geneidy (2014) used survey data and factor analysis to

create a cyclist typology based on determinants of the intensity of bicycle usage. Their typology includes four distinct cyclist types: "dedicated cyclists", "path-using cyclists", "fair-weather utilitarians", and "leisure cyclists". And most recently, Brey et al. (2017) categorize riders by their purpose for riding (utilitarian or recreational) and propensity to use public bike-share bicycles or privately owned bicycles. 186

Unlike the aforementioned empirical typologies based on the observed attitudes, sociodemographic characteristics, and riding practices of real riders, the final kind of typology sorts people (both riders and non-riders) into conceptually meaningful categories based on their *perceptions* (i.e. values, beliefs and norms) about bicycling and people who ride bikes (PWRB). Though merely perceptions, people's values, beliefs, and norms are important, both as a matter of perspective, as well as, in their ability to predict and explain empirically observed riding attitudes and behaviors. From the symbolic interactionist perspective, "if men (sic) define situations as real, they are real in their consequences" (Thomas and Thomas 1928), and indeed researchers have found that definitions of bicycling and PWRB have an impact on mode choice (Daley and Rissel 2011; Handy, Cao and Mokhtarian 2005), and vary significantly between people who ride bikes, and those who don't (Daley and Rissel 2011; Gatersleben and Haddad 2010).

Examples of research that typify people's perceptions of bicycling and PWRB include those such as a pair of efforts by Davies et al., one qualitative (Davies et al. 1997)¹⁸⁸ and another quantitative (Davies et al. 2001).¹⁸⁹ Using different methods, both studies categorize PWRB based on people's (both riders and non-riders) perceptions of riding as an alternative to driving a car. Similarly, Gatersleben and Haddad (2010) use factor-analysis to fit peoples' perceptions to "four stereotypes of cyclists": the "responsible

bicyclist" follows traffic rules and is courteous; the "lifestyle bicyclist" likes cycling and spends a lot of time and money on it; "the commuter" is a young, well-educated professional who cycles to work regardless of weather conditions; and the "hippy-go-lucky" is considerate and usually female, cycles for all trip purpose, and does not wear bicycle-specific clothes. Finally, Pooley et al. (2011) use factor analysis to distinguish the discourses of "cycling sanctifiers", "pedestrian prioritizers", and "automobile adherents" based on perceptions of normality of riding a bike as an alternative to driving.

The typology of riders presented in this chapter is meant to contribute the effort to better understand people who ride bikes (and those who do not) in two ways. ¹⁹⁰ First, it combines all of the above considerations, and adds additional ones, making it more comprehensive and wide-ranging that those noted above. Second, rather than relying solely on quantifiable measures to deductively identify latent factors or clusters; my typology is the result of qualitative data collection and analysis methods that inductively results in six ideal types of people who ride bikes.

Who is a Bicyclist? A Typology of People Who Ride Bikes

The findings that inform the typology of bicycle riders presented in this chapter and the next come from the analysis of interview transcripts, fieldnotes, and autoethnographic journals. I initiated my analysis using in vivo codes (Charmaz 2006; Saldana 2013:91), and after performing a second round of elaborative coding (Saldana 2013:229), identified seven themes that differentiate people who ride bikes (see Table 3). These themes represent discourses about the sorts of people who ride bikes, their purpose(s) for doing so, several common but contentious riding practices in which they engage, as well as

riders' meaning of, and motivation for, riding, as well as their self-conception as a person who rides a bike.

As ideal types (Weber 1949),¹⁹¹ the Rider-types presented here do not perfectly describe all real-life bike riders. As noted, I started this project with a desire to expound on the idea of a "bicyclist", which based on preliminary observations, I found to be insufficient to describe all people who ride bikes. In analyzing the data I collected, I constructed several theoretical categories of people who ride bikes to describe hypothetical riders. The riders are hypothetical in the sense that the theoretical categories do not describe any one rider in particular, but rather similarities observed across a range of typical riders and represent a synthesis of many real-life characteristics of people who ride bikes. Thus, any one rider can be included in more than one category at the same time (depending on the theme by which such a determination is made), and every person who rides a bike can be located in the typology at a given moment.

After a brief orientation to the themes and rider types, I ask the question "who is a bicyclist?" in a Socratic manner seven times, once for each theme, to progressively refine the understanding of the different types of people who ride bikes. Here in Chapter 5, I focus on themes one to four and the bicycling practices of PWRB and how differences in such distinguish different types of Riders from one another. As detailed in Chapter 3, when I write of bicycling practices, I am referring to directly observable behaviors such as when, where, with whom, and for what purpose(s) one rides, as well as how frequently, how fast, the route taken, the "rules of the road" adhered to (or not), and the technologies used, including type of bike, safety equipment, apparel, and other gear. In Chapter 6, I present themes five, six, and seven which highlight social psychological and interactional

differences between types of people who ride bikes – the scenes in which they "present their selves"; the meanings of bicycling and other riders they hold and their subsequent motivation for riding; and the boundary work they perform as a person who rides a bike.

Overview of the Types of People Who Ride Bikes

To begin the discussion of the different types of people who ride bikes, in this section I introduce each by discussing key attitudinal, behavioral and appearance characteristics. Here I intend to conceptually orient the reader and provide a rudimentary mental image of each Rider type with the expectation that it will facilitate a more in-depth discussion as the chapters progress. Table 3 provides a brief overview of the typology.

Table 3: Different Types of People Who Ride Bikes and Distinguishing Themes

<u>Riders</u> <u>Bicyclists</u>

- Reluctant Riders
 Everyday Bicyclists
- Simple Riders
 Advocates and Activists
- Rec Riders
 Bicycle Laborers

Themes

- 1. The extent and nature of a riders' enthusiasm for bicycling
- 2. Riders' primary purposes for riding
- 3. The strategies riders use to negotiate the "rules of the road"
- 4. The character of riders' bikes and riding gear
- 5. The number and variety of scenes in which riders "perform the bike rider role"
- 6. Riders' meanings of, and motivations for, bicycling
- 7. The who and what of riders' boundary work

For clarity, I start the discussion of different types of people who ride bikes (PWRB) with their synecdoche, *Bicyclists*. ¹⁹² However, unlike the common understanding of the term, I do not consider all people who ride bikes to be Bicyclists. Rather, in the way that not all females are feminists, I have observed that there is more to being a Bicyclist than

riding a bike. Rather, Bicyclists are people who enthusiastically ride bikes because they enjoy some aspect of it, and/or believe it is the right thing to do. They are the commuters riding to work, the advocates campaigning for bike lanes, the protestors blocking traffic, and the people delivering your lunch. When asked, Bicyclists self-identify as such (even if not by name). The typical, or more precisely, stereotypical Bicyclist is a fit, young to middle-aged, white, middle to upper-middle class male who rides a well-maintained, properly fit, and relatively expensive bike with accessories and apparel designed for bicycling efficiently, comfortably, and safely in all conditions.¹⁹³

In order to provide nuance and specificity to an otherwise diverse and nebulous category, I further differentiate between several subtypes of Bicyclists: (1) Everyday Bicyclists, (2) Advocates and Activists, and (3) Bicycle Laborers. Everyday Bicyclists are people who enthusiastically ride bikes as an alternative to driving a car, but do not occupy an organizationally defined status such as member, volunteer, or employee. In other words, Everyday Bicyclists are the Bicyclists who are not Advocates, Activists, or Laborers.

I also distinguish bicycling Advocates and Activists from other types of Bicyclists. As I did in the last chapter, here I use the terms advocate/advocacy to connote an institutionalized, *liberal* approach to encouraging change such as improving bicycling infrastructure and offering educational and economic incentives. Popular among professional Advocates and government officials (including most planners), Advocates are strongly pro-bike, but not necessarily (or at least not officially), anti-car. The terms activist/activism refer to those Bicyclists that call for radical change to the broader institutions of society (Vivanco 2013:111), and take non-institutionalized, unsanctioned,

and even illegal approaches to realizing such. Activists tend to be explicitly both "probike" as well as "anti-car".

Advocates and Activists (with a capital A) are those Bicyclists that perform a formal and/or organized role in the effort to see more people ride bikes more frequently and more safely. This means that to be an Advocate or Activist one must do more than engage in acts of personal advocacy such as "being an example", loaning bikes, and casually teaching friends and family how to ride effectively and safely, or taking part in acts of personal activism such as reproaching offending drivers with a disapproving stare, obscene gesture, slap on the fender, or more (see Chapter 4 discussion on DIY enforcement efforts). Rather, one must reflexively participate in organized efforts such as volunteering at the local CBO or joining in a Critical Mass ride. Bicycling Advocates and Activists are "...people who, at the very least, explicitly identify with and/or actively see themselves as part of a broader cultural phenomenon or political agenda (intentionality, physical participation, and/or communication seem to be key factors)" (Zack Furness, personal communication, April 28, 2013). Very few bicycling Advocates, and no Activists that I am aware of, are paid for their efforts. To the contrary, the majority of Advocates are dues paying members and volunteers who teach "earn-a-bike" classes, staff CBO bike shops, and serve as community out-reach "bike ambassadors". Formal bicycling advocacy organizations such as Community Cycles and Bike Denver (see Chapter 4) employ relatively few people, and even fewer are compensated with a living wage, benefits, and the prestige such that they would be considered "professional" bicycling Advocates. While most Bicyclist engage in acts of personal advocacy and/or activism,

professional bicycling Advocates are few and far between, and tend to be employed by municipal agencies and/or large, non-profit bicycling advocacy organizations.

Finally, there are several different sorts of people who "get paid" to ride a bike, but are not Advocates or Activists, at least not as a term of their employment. I will refer to these riders collectively as Bicycle Laborers. Specific sorts of Bicycle Laborers I observed include (1) bike messengers, (2) food delivery riders (FDRs) and other app-dispatched riders (ADRs), as well as (3) pedicab peddlers (pun intended). In this chapter and the next, I further develop these subtypes of Bicyclists as a part of the effort to address the question "Who is a Bicyclist?"

I further distinguish Bicyclists from three other types of people who ride bikes: (1) Rec Riders, (2) Simple Riders, and (3) Reluctant Riders. Rec Riders share Bicyclists' enthusiasm for bicycling and make their bike rider identity a favorable part of their self-conception. Rec Riders are the cyclists riding rural roads, the mountain bikers bombing down the sick hill, and the Cruisers enjoying a Thursday night ride. Notably, unlike Bicyclists, Rec Riders do not use bikes as an alternative to driving a car, but rather in addition to it. However, like Bicyclists, Rec Riders are stereotypically able-bodied, young to middle-aged, white, middle to upper-middle class males.

Like Bicyclists, Simple Riders are people who voluntarily ride bikes because they value some aspect of bicycling, typically the fun, fitness, and relaxation it affords. If circumstances change so that riding is no longer enjoyable, Simple Riders stop riding. Unlike Bicyclists, Simple Riders do not typically self-identify as "bicyclists" *per se* because for them bicycling is simply something they *do*; it is not a part of who they *are*. Simple Riders are unpretentious and literal in their approach to bicycling, and are either unaware

or unconcerned about the cultural, political, and other symbolic meanings of their riding, typically distinguishing their selves from "those bike nuts", and simply as someone who "just rides a bike". While Simple Riders' bikes are typically low to moderately priced, because they are new, they function as they should, are well branded, and not customized, sometimes to the point of being poorly fit. Simple Riders wear casual, everyday clothes, or general-purpose athletic apparel. Unlike Bicyclists, Simple Riders have no need for specialized outerwear designed to keep them warm and dry while riding, because they do not ride in poor conditions. Sociodemographically, Simple Riders are a more diverse category than Rec Riders and Bicyclists. The typical Simple Rider is the child who loves riding around his neighborhood, and the freshman college student who grew up in her parent's car but now finds that riding her roommate's bike is her favorite way to get to class. The typical Simple Rider is the tourist who decides to rent a B-Cycle and cruise down the Cherry Creek path, and the guy just diagnosed with diabetes, whose doctor has prescribed exercise. Most people who ride bikes are Simple Riders (Horton 2013).

Finally, Reluctant Riders are people who ride bikes, but not entirely by choice. Rather they ride a bike primarily because they do not drive due to poverty, disability, and/or trouble with the law. Secondarily, they ride a bike because it is more efficient than walking, and less expensive than mass transit. The riders I observed that most inform the Reluctant Rider category are particularly "down and out" (as Austin described himself and similar others). All but one of my research participants that I categorize as Reluctant Riders are homeless or marginally housed persons for whom driving a car was not possible primarily due to poverty. While in theory, a person could be a Reluctant Rider as

well as healthy and wealthy, real riders in this position are rare in Boulder and Denver. There are several alternatives to driving one's self in a car, including an (arguably) effective mass transit system, and several ride hailing and sharing opportunities. For someone with even modest financial means, it is easy to avoid bicycling if it so desired. 194 Thus, the typical Reluctant Rider is a poor, middle-aged to elderly male for whom some aspect of riding is uncomfortable, difficult, and/or dangerous. Reluctant Riders' bikes are often in disrepair, poorly fit, and overloaded making them difficult to ride efficiently. For those experiencing homelessness, bikes are hard to care for and secure, especially while staying in a shelter. Just over half of my interview participants that I categorize as Reluctant Riders had health problems, both chronic conditions and acute injury or illnesses, which made bicycling painful or uncomfortable. Dangers unduly faced by Reluctant Riders include being robbed of their bike, 195 and drawing unwanted attention from police and resident citizens. These discomforts, difficulties, and dangers are a primary source of their reluctance to ride a bike.

Using these rough sketches of the types of people who ride bikes as a starting place, in the following chapters I progressively refine the ideal types so that the complexity and emergent character of the bike-rider assemblage is made clear and used to respond to the question, "Who is a Bicyclist?".

ENTHUSIASM FOR BICYCLING

The first, and most fundamental, aspect of bicycling practice that distinguishes types of Riders from one another is the extent and nature of their enthusiasm for bicycling. Along with verbal expressions, I observed enthusiasm for bicycling expressed behaviorally in six different ways: (1) People who ride bikes (PWRB) express enthusiasm for bicycling

through having riding goals and demonstrating an effort to achieve them. 196 For example, Clara noted that she admired her "hardcore" colleague who was riding over 150 miles a week training for a triathlon. (2) PWRB also express enthusiasm for bicycling through the conspicuous consumption (Veblen 1899) of bikes, bicycling gear, branded apparel, and other status symbols connoting affiliation with one of several different bicycling-oriented sports and lifestyles. In general, the greater the quantity, expense, and specialization of a Rider's bike and bicycling accessories, the more enthusiastic the rider is considered to be. In my observations, this manner of expressing bicycling enthusiasm is the most common and observed to some extent with all Rider types. (3) An indicator of enthusiasm for utilitarian bicycling is organizing the instrumental aspects of one's everyday life, such as commuting to/from work, grocery shopping, etc. so as to accomplish the requisite trips by bike. The ultimate display of enthusiasm (and privilege)¹⁹⁷ along these lines is arranging instrumental obligations such that the commute to work, the trip to the store, and other everyday embodied mobilities can be accomplished entirely by bike. (4) Still others suggest that making "sacrifices" to ride – such as riding even when the trip takes longer than if driven or riding in unfavorable conditions such as extreme heat and cold, in wet weather, and in the dark is an indication of enthusiasm for bicycling. (5) People who ride bikes also express enthusiasm for bicycling through endeavoring to see more people ride bikes more frequently and more safely. This is accomplished by serving as a formal Advocate or Activist, or by engaging in acts of personal advocacy and activism. The greater the effort, the more enthusiastic the rider is said to be. The difference between encouraging a friend to join you on a slow roll around the park, volunteering weekly at the local bike shop, and being the executive director of a large bicycling advocacy

organization with a million-dollar budget illustrates these differences in terms of increasing enthusiasm. (6) Finally, organizational statuses, such as CBO volunteer, race participant, and bike store employee, are an indication of enthusiasm for bicycling; the greater the number and variety of roles enacted, the more enthusiastic a Rider is considered to be.

Accordingly, when I write of an increasing / decreasing degree (or intensity) of enthusiasm for bicycling, I am referring to an increase / decrease in the number, frequency, and/or fervency of these readily observable actions. Differences in enthusiasm for bicycling are important indicators of Rider type and vary widely – from the outright antipathy for bicycling of some Reluctant Riders, to the fanaticism of "hardcore" Rec Riders and Bicyclists. Here I order my discussion of the types of Riders by increasing level of enthusiasm.

No to Low Enthusiasm

The discussion of enthusiasm for bicycling includes a consideration of whether a rider bicycles voluntarily. The nature of free will and the extent to which people act voluntarily in any capacity, much less ride bikes, is an important, fundamental philosophical issue, but one that is beyond the scope of this dissertation. Thus, in my conversations with people who ride bikes, as a matter of perspective (Thomas and Thomas 1928), I straightforwardly accept riders' claims to freely ride (or not) as evidence of (in)voluntary riding. In my discussions with riders, many would tell me about how they often felt coerced to drive a car despite their enthusiasm for riding, while others would tell me about riding a bike despite expressing low levels of enthusiasm for doing so. More so, these discussions of the "barriers to bicycling" and "car dependency" made it clear that while volition and enthusiasm for bicycling are related, they are not precisely the same thing. In

general, volition and enthusiasm are positively related, and the more volition with which one rides, the more enthusiasm for it they will express. After all, it is difficult to be enthusiastic about a behavior one feels coerced into doing. More so, the discussion got me thinking, if people can be "car dependent" (Newman and Kenworthy 2015), then it makes sense that people might be "bike dependent" as well. Like enthusiasm for bicycling, the voluntary / involuntary distinction is not a tidy dichotomy, at least not empirically, and is best understood as degrees of freedom. While real bike riders' volition exists on a continuum, for the sake of typifying riders, in the following paragraphs I simply note whether people who ride bikes do so (1) involuntarily, (2) with limited volition, or (3) voluntarily.

The primary distinguishing feature of Reluctant Riders is that they typically express little to no enthusiasm for bicycling, and at times even a degree of antipathy for it, which is unsurprising given that they feel coerced to ride. Several riders I spoke to, including Austin, John, Shawn) reported riding only because making trips by other modes was practically impossible, due to a combination of poverty, disability, and/or being legally prohibited from driving cars. For these riders, enthusiasm for bicycling was so low that I consider them to be involuntary, and "bike-dependent", Riders.

Low to Moderate Enthusiasm

Simple Riders typically express low to moderate levels of enthusiasm for bicycling but are clearly distinguished from Reluctant Riders in that they ride voluntarily. As noted, for Simple Riders bicycling is a casual pastime. Typically, they do not have riding goals, or make sacrifices to accomplish them. Simple Riders make little or no effort to encourage others to ride or participate in organized riding events. For example, Winnie shared stories

of late afternoon rides in a nearby park with her granddaughter and the occasional trip to the store if the weather was "just right" (not too hot, not too cold). However, she also noted that bicycling was never a challenge, or uncomfortable for her because when the going got tough, she simply drove. She discourages her daughter from riding to school because she believes it is too dangerous. She rides an entry-level hybrid bike purchased on sale at REI for about \$300 and does not own specialized bicycling apparel other than a helmet. She has never ridden in an organized ride, or with anyone other than family members.

Moderate to High Enthusiasm

Rec Riders are most clearly distinguished from Reluctant and Simple Riders by their relative abundance of enthusiasm for bicycling. Rec Riders typically express moderate to high, sometimes fanatic levels of enthusiasm for specific recreational bicycling pursuits, particularly as measured by indicators 1, 2, 4, and 6. My research participants that I classify as Rec Riders shared ambitious riding goals, ride highly specialized, thus expensive, bikes outfitted with accessories, and wear apparel that marks them as enthusiasts of their particular bicycling pursuit. Rec Riders make significant sacrifices of time, money, and effort to achieve their aforementioned goals, which also necessitate participation involvement in organized events such as rides and races. For example, Molly and Peter are a couple who I interviewed during their week off from their trans-American ride. Not only is such a ride rather ambitious, it necessitated expensive bikes and gear (see Table 5.1, Image E), as well as sacrifices of time, money, and effort.

Like Rec Riders, Bicyclists typically express a moderate to high degree of enthusiasm for riding, though such depends considerably on the subtype of Bicyclist they are. The research participants I categorize as Everyday Bicyclists speak of having modest goals and plans to ride regularly, even if not every day, and for specific trips such as riding to work, taking kids to school, and light shopping. Everyday Bicyclists typically use specialized bikes and riding gear designed to increase riding efficiency and comfort and help them make the sacrifices necessary to realize their utilitarian riding goals despite the distance, time of day, or weather. Moreover, a majority of my research participants that I categorize as Everyday Bicyclists share stories of engaging in acts of personal advocacy, "being an example" in particular (the most commonly mentioned act of advocacy).

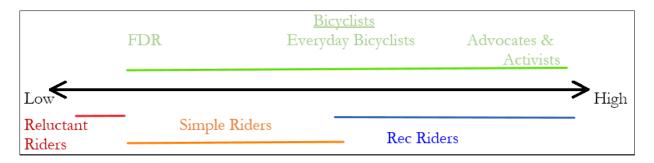
On the other hand, just less than half of the riders I categorize as Everyday Bicyclists, stress the economical and efficient quality of bicycling as an alternative to driving a car. For example, Alex, Sasha, David, Emily, and others said they ride, at least in part, because parking is expensive, rush hour traffic is a hassle, it is too far to walk, and/or the bus is too slow. Plus, most of the year the ride is pleasant, and they get some exercise. Riding is not their ideal mode of everyday embodied mobility but given "the situation" (Goffman 1959), it is their preferred mode. I take this approach to riding a bike as sign of moderate enthusiasm, and an indication that if these extrinsic motivations changed, so too would their mode of everyday embodied mobility.

Bicycling Advocates and Activists rate high on the enthusiasm scale relative to other types of Bicyclists. An example of a very high-enthusiasm Bicyclist is the case of Kent, a municipal transportation planner and professional bicycling Advocate. A typical day for Kent starts with a bike ride to drop his kids at school using a specialized bike built for transporting cargo and kids. He then rides to work, a ten-mile ride counting the stop at school, and spends the day working to encourage more people to ride bikes more frequently and more safely. On weekends he enjoys cycling with his buddies and working

on his bike, which includes shopping for parts and accessories, as well as installing them. But more than their *degree* of enthusiasm, Advocates and Activists' organized efforts to get more people to ride bikes more frequently and more safely is a unique *manner* of expressing enthusiasm for bicycling that distinguishes them from other Bicyclists and PWRB in general.

In the U.S. today, the need to have a job is so great that it feels like one has no choice in the matter. Thus, the enthusiasm of Bicycle Laborers for bicycling per se is empirically difficult to distinguish from their desire (or need) to earn money. But because Bicycle Laborer jobs are relatively rare, low paying, physically demanding, and dangerous (Daley & Rissel 2011; Fincham 2007a, 2007b; Kidder 2006a, 2006b, 2011), as an ideal type, I consider Bicycle Laborers to ride with at least moderate enthusiasm, otherwise they would most likely have another job. However, this is a broad generalization, insomuch as the volition and enthusiasm of Bicycle Laborers ranges much more than other types of Riders. Based on observations, in situ discussions, interviews with experts, and extant research (Fincham 2007a; Kidder 2006, 2011; Wehr 2009), "pro-cyclists", bike messengers, and pedicab peddlers express the highest levels of enthusiasm for bicycling as a job, while food delivery riders (FDR) and app-dispatched riders express the least. Bicycle scholar Do Lee (2018) documents the plight of FDR in New York City, many of whom are indebted immigrants coerced into working difficult, dangerous, and low-paying jobs (P.77-80). However, in my research, every Bicycle Laborer I spoke to, FDRs and ADRs included, claimed to enjoy their job, at least the riding aspect of it, suggesting they do it voluntarily and with at least a moderate degree of enthusiasm. The reasons why enthusiasm varies so much among Bicycle Laborers is a complex interaction of the sociodemographic characteristics of the riders who are typically employed in the different jobs, their symbolic meaning, and the structure of their compensation. It is also a topic beyond the scope of this dissertation and deserving of its own dedicated research. Figure 6 visually represents the ranges of enthusiasm for several types of people who ride bikes.

Figure 6: Ranges of Enthusiasm for Selected PWRB



PRIMARY PURPOSE FOR RIDING

The second theme of bicycling practices that distinguishes types of Riders from one another focuses on the purposes for which people ride bikes. Bicycling scholars commonly recognize two primary purposes for riding a bike. People ride bikes to accomplish everyday instrumental tasks such as commuting to work or school, shopping, other household errands, and instrumental activities of daily living (IADLs) involving embodied mobility. People also ride bikes for the intrinsic enjoyment of doing so. In addition to leisurely rides in the park, exercise, and kids at play (Hoffmann 2013), just over half of my research participants engage in one or more competitive/sporting bicycling pursuits such as cycling (road bike riding/racing), mountain biking, cyclocross, and BMX, a finding that corroborates other research on the topic (Lourontzi and Petachti 2017; Xing et al. 2010, Table 2). Like most bicycling scholars, I refer to the first purpose as utilitarian bicycling, and the second as recreational bicycling. 199 However, his distinction is primarily

analytic, and in everyday life PWRB frequently bicycle for both purposes, even at the same time.

Bicycling as an Alternative to Driving

As discussed in Chapter 1, the vast majority of people in the U.S. use cars²⁰⁰ to accomplish everyday instrumental tasks involving embodied mobility, and the vast majority of trips made by car are made for utilitarian purposes.²⁰¹ Accordingly, I consider trips made by bike for utilitarian purposes to be made as an alternative to driving (AtD) a car, but because recreational bicycling does not address instrumental needs, I do not consider trips made for recreational purposes to be made as an alternative to driving. More so, it follows that nobody rides involuntarily for recreational purposes. I further use the terms "car-free", "car-lite", and "car-less" to discuss the volition and enthusiasm with which different types of Riders ride as alternative to driving.²⁰² Most of the people I observed were car-lite, and about half dozen were car-less. Despite a concerted recruitment effort, I was unable to directly observe or interview any completely car-free riders, most likely due to the difficulty of such an embodied mobility routine. While many people turn to bicycling when looking for an alternative to driving, most do not. Nationally and citywide in Denver, bicycling is least popular alternative to driving a car with more people walking, using transit, or ridesharing instead. In bicycle-friendly downtown Denver and Boulder, bicycling as an alternative to driving is more popular but still less so than transit in Denver, and ridesharing in Boulder.²⁰³ One can be car-free, car-lite, or car-less and never ride a bike. However, as a matter of perspective, my focus is on riding a bike as an alternative to driving a car, and its importance in distinguishing Rider types from one another.

With such in mind, I return to the question of, Who is a Bicyclist? Table 4 provides an overview of Rider types in terms of enthusiasm for bicycling and whether the Rider typically bicycles as an alternative to driving (AtD), or not. In the following paragraphs, I will elaborate in order of increasing enthusiasm.

Table 4: Enthusiasm and Driving as an Alternative to Driving						
	No to Low Enthusiasm	Low to Moderate Enthusiasm	Moderate to High Enthusiasm			
Does not ride as AtD		Simple Riders	Rec Riders			
Rides as AtD	Reluctant Riders "car-less"		Bicyclists "car-lite" to "car-free"			

As Table 4 makes clear, Reluctant Riders typically ride as an alternative to driving. But because they do so involuntarily, I consider them car-less rather than car-free Riders. This is important because in today's socioeconomic culture being car-less is only a step above being homeless and being car-less heavily shapes the typical riding practices and experiences.

Riding for Recreational Purposes

Simple Riders typically ride for recreational purposes, and thus not as an alternative to driving, at least not purposefully. To do so would make that person a Bicyclist. However, Simple Riders may inadvertently accomplish an instrumental task when on a ride. For example, Winnie reported making a trip or two to the nearby grocery store each month, when the conditions are right. However, she described the ride as being made "primarily for the fun of riding a bike" and did not consider it a "chore" at all. Similarly, the college student cruising to class on her roommate's bike is also technically commuting. However,

as a typical Simple Rider Emily does not consider herself as a Bicyclist as a result of doing so.

Like Simple Riders, Rec Riders typically bicycle for recreational purposes, and do not ride as an alternative to driving a car. To the contrary, rather than serving as an alternative to driving, recreational riding often induces car trips when Rec Riders transport their selves and their bikes to and from the location of their bike ride, by car. Thus, their relative abundance of enthusiasm for bicycling, does not contribute to efforts to reduce the high costs of hyperautomobility. Because Rec Riders and Bicyclist express similar levels of enthusiasm for bicycling, the difference in their purposes for riding is the primary, and eponymous, characteristic on which subsequent distinctions depend. Like the others, this distinction will become progressively clear as I discuss subsequent themes.

Riding for Utilitarian Purposes

Of all the types of PWRB, Bicyclists are the only ones that express enthusiasm for bicycling as an alternative to driving a car, particularly in terms of indicators 1, 3, and 4 (having utilitarian riding goals, and making efforts to realize them). In the course of my research, I observed and interviewed several highly enthusiastic Bicyclists. For example, when I interviewed him (April 2014), Noah's goal was to ride to work every day, a ninemile ride that included a hill of over two miles and five hundred feet of elevation. As part of his plan, he sold his car and agreed to share just one with his significant other. He was able to persevere through summer heat and winter darkness, and even a multi-year road construction project on the hill that meant being hemmed into a narrow, debris-filled shoulder by concrete barriers for the uphill climb and merging with highway speed traffic

on the descent. Despite the very unpleasant and dangerous conditions, he made the sacrifices necessary to achieve his goal of not driving to work.

While the most enthusiastic of Bicyclists I met complete approximately 95%²⁰⁴ of their everyday embodied mobility trips by bike, none are completely car-free and have access to cars for trips that are too dangerous, difficult, or time consuming to make by bike. For example, Jade, who otherwise lives a car-free lifestyle, borrows a friend's car once a month for a trip to the local wholesale club to purchase household items too large or numerous to be conveniently transported by bike. Also on occasion, she rents a car to take herself, and her car-lite friends, to the mountains for camping trips.

Along with sharing stories of being car-free in past and hopes of being more carlite, or completely car-free, in the future, Bicyclists spoke at length about the riding
practices that were most helpful to them in their efforts to ride as an alternative to driving.
The three most informative practices include (1) being able to transport more than just
one's own body, (2) using e-bikes, and (3) using transit in combination with bicycling. In
the next several paragraphs, I summarize these strategies.

Riding as an alternative to driving not only means using a bike to transport yourself, but also all necessary belongings, such as personal items, groceries and household items, children, and even pets. The *ability to transport more than one's self by bike* is greatly enhanced through the use of specialized "cargo" and "kid carrier" bikes, and/or bicycling accessories such as backpacks, panniers, and trailers. The variety of bikes and accessories used by Boulder and Denver riders is too large to discuss in detail here, though the images below (see Tables 5.1 and 5.2) represent examples of what I observed. My observations did include a few remarkable feats of hauling, including a

couple, Molly and Peter, riding across the country, an effort that necessitated carrying all their possessions including food and camping gear (image E); a non-profit group that "rescues" food using bikes and specially designed trailers (image F); as well as, one very enthusiastic Bicyclist who managed to move his entire household by bike (image C). However, most of my research participants were much more modest in their goals and accomplishments typically using specialized bags, baskets and panniers (image A) to transport themselves and belongings between home and work, picking up "fill-ins" at the store, and taking the kids to school (images B and D), by bike.

Table 5.1: Specialized Bikes and Accessories













It is worth noting that along with Bicyclists, Reluctant Riders also frequently transport their belongings, sometimes all of them, by bike but typically without the advantage of specialized bikes and expensive accessories. When necessary, these riders skillfully and creatively lash their belongings to their bike, and often forego riding it to increase its cargo carrying capacity (Image G). When available, a bike trailer is a particularly valuable accessory, freeing up room to ride the bike, while transporting additional belongings, even a loved one such as a pet (Images H and J).

Table 5.2: Specialized Bikes and Accessories

G) Unridable bike used for carrying belongings

H)







Closely related to the use of specialized bikes and accessories is the use of bicycles that are partially powered by electric motors, known as electric-assist bicycles, or simply "e-bikes" (image D).²⁰⁵ Though less than one fourth of the research participants that I categorize as Bicyclists used an e-bike at the time I interviewed them, several mentioned that they were considering a purchase in the near future. E-bike technology is rapidly advancing, and the use of e-bikes is increasing by the month. Had I conducted my interviews this year, I suspect the use of e-bikes would be double, or even triple that which I observed. This assertion is corroborated by research (Ling 2017), sales data (McCue 2018) and several recent changes to state and municipal regulation that allow a greater variety of e-bikes to be ridden in more places.²⁰⁶ E-bikes afford heavier loads and longer distances to be realized by bike, greatly enhancing an enthusiastic rider's car-free capabilities. Four of my research participants, all parents, explicitly mentioned that e-bikes were essential to their efforts to drop-off / pick-up their kids from school on the way to/from work, trips that ranged from five to nine miles (one-way), by bike. I suspect that this is also true of others, but the topic did not come up in conversation.

Finally, the last common practice used by riders to extend their car-free range that I discuss is combining bicycling with mass transit.²⁰⁷ For example, Mac, a professional. white male in his 40s commutes from home just east of Boulder to downtown Denver, a trip of almost 30 miles, several times a week, by completing a 3 mile bike ride to the closest regional bus station, taking a bus to Denver (25 miles), and then riding another 1 mile to his destination. When using the bike-bus combo, this trip usually takes less than one hour, but if made entirely by bike it would take almost 3 hours, even on a good day, making it time-prohibitive. While Mac prefers to complete the trip by taking his bike on the bus, others prefer using two bicycles, one at each end of the transit trip. However, this technique requires owning two bikes and paying for storage of his bike in Denver, and/or a B-cycle membership. Mac expresses a clear preference for the former primarily due to increased flexibility and cost savings, but also out of a desire to ride only his own, highly customized, bike. As he remarked, "when you really bike a lot, riding a bike other than your own is like wearing someone else's boots. Riding those B-cycles is about as cool and comfortable as wearing rented bowling shoes".

As subtypes of Bicyclists, the riding practices of bicycling Advocates and Activists, as well as Bicycle Laborers look a lot like those of the Bicyclist in that all three typically ride a bike as an alternative to driving a car, at least in their official capacity as such. Bicycle Laborers ride as an alternative to driving, at least at work, insomuch as they deliver food, packages, and people that presumably would otherwise be delivered by a car, or not at all. The research participants that I categorize as Activists express more enthusiasm for bicycling that the typical Bicyclist, while Advocates mirrored it. My research participants who joined in activist events have the most car-free riding routines.

Like the typical Bicyclist, Advocates' riding practices are definitely car-lite, but not to the extent that Activists' are. While most of the bicycling Advocates I observed enthusiastically ride as an alternative to driving a car, not all did. Going into this project, I did not anticipate meeting low-enthusiasm bicycling Advocates, but my observations and interviews are clear. At close to half of all advocacy events I observed, I witnessed paid and professional Advocates driving to/from the event, usually when the weather was bad, or the event lasted late. I also met one professional Advocate that qualifies as a super commuter, 208 and another who confessed to driving to work more days than not. Though I observed far fewer, never did I see participants driving to activist events. In discussing my observations with other professional Advocates, they attributed the difference to a "pro-bike" vs. "anti-car" mentality that distinguishes Advocates from Activists. According to the Advocates I spoke to, one can be ardently "pro-bike" and drive on occasions when riding would be dangerous or particularly uncomfortable. Makala, the only Activist I spoke to about the topic, simply attributed my observations to a lack of enthusiasm on the part of "mainstream" advocates.²⁰⁹

STRATEGIES FOR NEGOTIATING THE RULES OF THE ROAD

The third theme of bicycling practices that distinguishes types of Riders from one another are the strategies Riders use to negotiate the "rules of the road". Because of the cardominated built environment, if one is to ride as an alternative to driving, they will be forced to venture into the roadway, even if in a bike lane or crosswalk, where they will encounter motor vehicles, and become subject to the rules of the road. Throughout this dissertation, I precisely use the terms "road" and "street" to differentiate between two different places that people ride bikes. I use the terms *road* and *roadway* synonymously

to connote transportation infrastructure that is car dominated and "high stress" (Furth et al, 2016).²¹⁰ Roads (both urban and rural) are thoroughfares characterized by moderate to heavy car traffic traveling at moderate to high speeds (>25mph). Roads have multiple, well-delineated lanes that may, or may not, include bike lanes.²¹¹ Roadways are car dominated not only because of heavy, fast moving car traffic, but also because they are widely believed to be primarily "for cars", and other uses such as bicycling are either officially prohibited and/or informally sanctioned by car drivers. In contrast to roads, I use the term *street* to connote a calmer,²¹² low stress (Furth et al, 2016) scene of everyday bicycling. Though still shared, car traffic on streets is light and slow (<20mph), and thus streets have few if any lane markings. The quintessential street is a cul-de-sac in a low-density residential area, or one lined with wide sidewalks, cafés, and small stores in an urban area. Of course, the road/street distinction is analytic and real roads blend seamlessly into streets.

I use the phrase, "the rules of the road" to summarize the social norms that govern roadway behavior.²¹³ The rules of the road include both formal laws and informal social norms. Officially, bike riders have the same rights and responsibilities under the law as any other roadway user – except where the law says otherwise, and those expectations that "by their nature can have no application" (CRS 42-4-1412), and generally requires riding in a manner that approximates driving a car.²¹⁴ At the same time, decades of well-financed advertising, lobbying, legal maneuvers, and cultural politics by the automobile and allied industries (steel, rubber, oil, road construction, etc.), have resulted in informal roadway norms dominated by pro-driving and anti-bicycling sentiment (Furness 2010, Longhurst 2015).

Informal roadway norms differ substantially from the formal ones and are much more straightforward: riders simply need to "stay the hell out of the road!" (as more than one driver has demanded of my research participants and me), or at least do not impede car traffic, even if doing so is legal.²¹⁵ The conflicting nature of formal and informal social norms governing roadway behavior results in a proverbial "damned if you do, damned if you don't" situation (Johnson 2011) for riders wanting to ride as an alternative to driving. In practice, there is no way for a rider to efficiently and enthusiastically ride as an alternative to driving a car without violating some aspect of the rules of the road. Thus, riding as an alternative to driving unavoidably involves negotiating conflicting norms.

During my research, I have observed a wide range of riding practices used to negotiate the confusing and conflicting norms riders experience on the road. While here I discuss three points on a continuum of riding practices, real riders do not necessarily, or even commonly, limit their riding practices to these artificially discrete practices, even within a given trip. Rather they engage in each as they feel is necessary given the particular situation in which they find themselves. In response to confusing and conflicting roadway norms, I have observed riders (1) riding in a manner known as "vehicular cycling"; (2) riding in a manner similar to vehicular cycling, but that approximates driving a car in a *de facto* manner; and, (3) avoiding the roadway altogether. In the following paragraphs, I elaborate on each practice, from the least to most common, while discussing which type of Rider typically practices each.

Vehicular Cycling

The first practice I observed being used by riders to negotiate conflicting roadway norms is known as vehicular cycling. When practicing vehicular cycling, riders make full use the

roadway, and ride in a manner approximating a car, most importantly including an effort to adhere to the letter of the laws governing the roadways. Vehicular cycling was formalized and articulated in the mid-1970s by bicycling enthusiast, scholar, and advocate John Forester who asserted that "cyclists fare best when they act and are treated as drivers of vehicles" (Forester [1976] 2012:xix).²¹⁶ Throughout the 1980s and 1990s the vehicular cycling philosophy gained considerable popularity among transportation officials, planners, and even bicycling advocates, and subsequently came to heavily inform roadway laws and designs such that adhering to the letter of the law required a rider to practice vehicular cycling (Schmitt 2018; Schultheiss and Toole 2018).²¹⁷ Because proponents of vehicular cycling believe them to be inherently inferior and unsafe,²¹⁸ in the strictest sense, vehicular cycling means foregoing the use of dedicated bicycling facilities, especially simple bike lanes²¹⁹ and sidewalks, even when available and permitted. Forester ([1976] 2012) calls this "inferiority cycling" (P.xix), or more kindly "bikeway cycling" (P.xiii), and explicitly distinguishes it from the practice of vehicular cycling.

More so, a strict adherence to the principles of vehicular cycling includes practicing legal, but widely scorned, riding techniques such as lane control (Forester [1976] 2012). Also known as "taking" or "claiming" the lane, lane control refers to a technique where a rider positions themselves in the middle of a general-purpose lane to prevent lane sharing or being passed.²²⁰ According to the principles of vehicular cycling, this technique is to be used in situations when a rider is planning to turn left, the lane is too narrow, or for other reasons believes it is unsafe to allow cars to occupy the same lane. Colorado and most states permit, and advocates encourage, this riding technique, though research suggests it raises the ire of drivers whom believe bikes don't belong in the road at all, much less "in

the middle of the street" (Hoffmann 2013; Johnson et al. 2011, 2013; Johnson, Piatkowski and Marshall 2017; Thompson 2015). Lane control exemplifies the conflicting nature of the rules of the road where on one hand the law and advocates tell riders to do it, but popular opinion believes it to be rude, if not reckless and scofflaw. Thus, the ensuing interactions between riders practicing lane control and drivers are often antagonistic and challenging for riders to overcome.

Strict adherence to the principles of vehicular cycling is the least popular riding practice that I observed, and none of my interview participants reported *practicing* it in principle, or described themselves as "vehicular cyclists" *per se.* More so, when discussing roadway-riding practices, everyone I spoke with reported using dedicated, onroad bicycling facilities, including simple bike lanes, when available.²²¹ Thus, I consider the practice of vehicular cycling in Boulder and Denver to include the use of convenient, safe, on-road bicycling facilities in a manner prescribed by law.²²² The only type of Rider that I observed promoting and practicing vehicular cycling with any fidelity are bicycling Advocates working in an official capacity.²²³ Vehicular cycling is the official "line" (Goffman 1983) of Advocates, municipal officials in particular, because it conforms to legal expectations.

Avoiding the Road

A popular alternative to the practice of vehicular cycling is avoiding the roadways, and thus the rules of the road, altogether. All three types of Riders – Reluctant Riders, Simple Riders, and Rec Riders – typically do not use the roadway. Subsequently, they have little trouble negotiating the rules of the road and experience few, if any, conflicts²²⁴ with

officials or other roadway users (ORUs). You don't have to obey the rules of the road if you don't ride in it.

Reluctant Riders typically stick to the quiet streets, off-road pathways, and sidewalks of their communities, using on-road bicycling facilities only when necessary. Because Reluctant Riders typically ride as an alternative to driving, avoiding the roadways often means additional distance and time to accomplish their instrumental activities of daily living (IADLs) involving embodied mobility, making their riding practice inefficient. According to my research participants that I categorize as Reluctant Riders, they try to minimize their interaction with ORUs, a riding practice largely motivated by desire to avoid conflict and subsequently the police. Simple Riders and Rec Riders typically ride for recreational purposes, most of which occurs off-road, on calm, neighborhood streets and sidewalks, as well as on paths and trails. Several of my interview participants that I categorize as Simple Riders explicitly stated that they only ride as much as they do because they can avoid the roads thanks to the Boulder and Denver area's extensive system of off-road bicycling facilities. Research from People For Bikes, whose Bike Network Analysis (BNA) ranks Boulder's "low stress" bicycling infrastructure (calm streets, pathways, trails, etc.) among the best in the nation, corroborates this finding.²²⁵

Two notable exceptions to Riders' practice of avoiding the road involve Simple Riders in crosswalks, and cyclists on canyon roads. Simple Riders, especially those such as kids, tourists, and other "newbies", often are unfamiliar and/or uncomfortable with the rules of the road, including those that pertain to crossing it. In my observations, this is particularly true of the use of mid-block crosswalk signals and the norms that expect users to activate the signal and then proceed into the crosswalk in a well-timed, predictable

manner that allows cars to slow or come to a gradual stop and minimizes their delay. To the dismay of drivers, Simple Riders often either wait until cars come to a complete stop before proceeding thereby increasing the delay, or speed through the intersection without activating the signal whereby drivers are forced to come to an abrupt stop.²²⁶

Most Rec Riders, mountain bike, BMX, and cyclocross riders in particular, typically ride on backcountry roads, single-track trails, and in bike parks, where car traffic is light or non-existent, eliminating the need to negotiate the rules of the road. One notable exception is that of road bike riders, or "cyclists". As noted in Chapter 4, the Boulder Denver area is home to many aspiring, elite, and professional cyclists, clubs, and teams.

Due to the nature of the sport, cyclists ride the rural roads the region, often groups for encouragement, competition, and company, which at times leads to conflicts with car traffic, particularly on one of the area's many narrow canyon roads. This situation has led to violence and death, and is one of Large group of road cyclists the graver conflicts in the area.²²⁷



Figure 7:

De Facto Vehicular Cycling

Because they ride as an alternative to driving, avoiding the road is not practically possible for Bicyclists. More so, except for all but a few of the most "strong and fearless" (Dill and McNeil 2013, 2016) Bicyclists that I spoke with, vehicular cycling is just far too unpleasant, scary, and/or inefficient to practice in the strictest sense. Instead, Bicyclists engage in a practice I describe as de facto vehicular cycling – the practice of riding in a manner that approximates driving a car, but includes the use of dedicated, on-road bicycling facilities

when available, and the judicious disregard of roadway laws that Bicyclist believe unduly inconvenience them, place them in danger, or subject them to the scorn of drivers. I use the term *de facto* because research shows that just about every roadway user, regardless of mode, regularly violates the letter of the law (Furness 2010:132; Marshall, Piatkowski and Johnson 2017). Many of these violations (e.g. jaywalking, speeding, rolling through stop signs, etc.) occur so frequently as to rightfully be considered normative (Johnson, Piatkowski, and Marshall 2017). Thus, when PWRB violate the rules of the road they are riding in a *de facto* manner. And if one is truly to ride in a manner that approximates driving a car (per the principles of vehicular cycling), they should not be expected to adhere to the letter of the law and be granted a bit of "artistic license" (Hurst 2014) when negotiating the rules of the road.

When discussing their efforts to negotiate the rules of the road, my research participants frequently spoke of violating the principles of vehicular cycling, and the letter of the law. While non-riders and strict adherents to vehicular cycling regularly characterize such riding practices as rude, reckless, scofflaw, and detrimental to advocacy, the majority of riders with whom I spoke described a more calculated and circumspect practice in which they judiciously disregard the rules of the road²²⁸ for the sake of efficiency, safety, and/or courtesy. This observation contradicts hegemonic discourse found in the news and entertainment media, as well as official and everyday discourse, which portrays Bicyclists as rude, reckless, and scofflaw roadway users.

In addition to retreating to dedicated bicycling facilities, Bicyclists told me of (1) proceeding through intersections ahead of the signal (the green light); (2) not stopping at stop signs; and, (3) riding on sidewalks.²²⁹

Throughout my research efforts, I regularly read of, observed, and practiced myself, *riding through a signalized intersection against the light*. While my research participants and I acknowledge the ostensible risk of this practice in the abstract, riders report mitigating the risk *in situ* by using their unattenuated view of the road to wait for cross-traffic to clear, and proceeding only after carefully checking for turning, oncoming, and over-taking traffic, a technique corroborated by other research (Conley 2012; Hurst 2014; Johnson et al. 2011, 2013).

Similarly, many Bicyclists describe judiciously disregarding stop signs. The rules of the road that govern bike rider - car driver interaction at intersections regulated by stop signs are particularly difficult for riders to negotiate. Unlike intersections with stoplights, riders and drivers must negotiate whose turn it is to go without explicit directions from the signal. And while the law prescribes such, stop sign regulations are not widely known and/or poorly adhered to by both riders and drivers, who each believe the other to be unpredictable and untrustworthy. Unsurprisingly, the riders I observed and spoke to approached stops signs as if anything is possible. As Miguel wondered, "will the driver take turns with me as they do with other cars? Will they roll through the stop sign without seeing me? Or, will they roll through the stop sign even though they see me!". More so, I have been informally sanctioned on more than a half dozen occasions in the course of my research for refusing to proceed through a stop sign out of turn at the urging of a presumably well-intentioned driver. In these situations, not only would have proceeding out of turn been illegal, but also likely seen as rude and/or reckless from the perspective of others at the intersection. Here again we see the conflict between the letter of the law and informal social norms.

Finally, Bicyclists discussed using sidewalks when bicycling facilities were absent, and the roadway too dangerous or inhospitable. For example, one participant told of using a sidewalk to avoid merging with morning rush hour traffic in a general-purpose lane when the bike lane they were using was closed due to construction. Another rider recounted using a sidewalk to reach a nearby non-motorized pathway and avoiding riding the wrong way up the one-way street leading to it. Though sometimes a calculated violation of the rules of the road by experienced Bicyclists, riding on sidewalks is more typical of Simple Riders, many of whom are children or new to bicycling and unaware of the norms governing riding on sidewalks. In Boulder and Denver, where one can and cannot ride on sidewalks is not intuitive or well known (especially to new riders). In general, riding on sidewalks is permitted in residential neighborhoods (where Simple Riders typically ride).²³⁰ but ironically riding on the sidewalks is prohibited where it is most often desired, in the central business districts, and along busy, high-speed, retail-dominated roads.²³¹ The regulations governing where one can ride on sidewalks are another example of confusing and conflicting rules of the road.

Riders' Accounts for Violating the Rules of the Road

The majority of the Bicyclists whom I observed, myself included, practice *de facto* vehicular cycling. Not only do they use on-road, dedicated bicycling facilities when available, safe, and convenient, they violate the rules of the road as describe above. Here I use the accounts (Scott and Lyman 1968) of these behaviors to further distinguish subtypes of Bicyclists from one another.²³² There are four general types of accounts of violating the rules of the road: (1) appeals to safety, (2) appeals to efficiency, (3) claims of courtesy (in effort to avoid the scorn of drivers), and (4) for the sheer fun of it.²³³ The

first three accounts are justifications in that they attempt to neutralize the deviance of the rule violation – instead of being rude, reckless, and scofflaw, the violations are efforts to be safe, efficient, and courteous. The fourth account is an excuse in that acknowledges the norm violation but evokes the fundamental human desire for pleasure to neutralize the wrongness of their behavior (Scott and Lyman 1968).²³⁴

(1) Bicyclists tell me that they run red lights in order to avoid being caught up in, and likely impeding, accelerating cars. Not only did they believe this practice was safer considering the complexity of traffic movements at intersections, and healthier given the additional car exhaust emitted by accelerating cars, it also allowed them to get up to speed and out of the way of drivers, thereby minimizing their scorn. As Angelina recounted: "Why would I want to wait to have a mass of cars pushing up behind me? All that waiting for the light does is put me in the way of a bunch of impatient and distracted drivers ... pissing them off, if they're paying attention at all. I ask: What about waiting for them to pass? To which she answers: "Sure, I suppose I could. But I'm in a hurry too ... and then I'm left to suck in all their exhaust. Sometimes it is unbearable, like when there are [large, Diesel] trucks and buses in the mix. The fumes alone can kill you, much less being run over."

Another rider that I opportunistically intercepted had just received a ticket for running a red light.²³⁵ After approaching him on my bike, explaining my interest in his situation, and conveying my sympathy, I asked him what the ticket was for: "I went through the red light, which I did in order to be safe. There were no cars coming, and I wanted to get through before any did arrive. It's a busy street and I think it's a lot safer to cross when there are no cars. I affirm his experience and ask: Sure, I understand. Have you been

ticketed before? He responds: "No, but I'm willing to pay this (waving the ticket in the air) in order to not risk my life." I probe further: Don't you think it is dangerous to run a red light? He answers: "Not if there are no cars coming. It's more dangerous to wait for the green if there are cars turning or racing through. You know, about a half-dozen cyclists, maybe more, have been killed over the past few years by cars. And none of them were running a red light. If there are lots of fast cars coming up behind me potentially going to turn, I won't go through an intersection even if I have a green light. What matters is the amount of traffic and their speed. It's the danger, not the color of the light that matters. I'd rather break the law than die." And with that, he abruptly said good-bye and rode away.

- (2) Similarly, the Bicyclists I spoke to argue that stop signs are only necessary for cars and are unduly inefficient for riders. Because riders are not sequestered inside cars (Randell 2017), they have a better awareness of the roadway as they approach an intersection. If the rider has slowed to a reasonable speed, 236 there will be plenty of time to stop, and of course, a prudent rider will always yield if there is a car in the intersection with which right-of-way needs to be negotiated. Also, riders are lighter and move at slower speeds than cars, which mitigates risk to others, and further justifies their momentum-preserving behavior. Like slipping through an intersection before the light turns green, rolling through a stop sign in a manner that avoids having to negotiate right-of-way with drivers allows the rider to conserve hard-earned momentum (Fajans and Curry 2001), and improves the flow of car traffic because they too do not have to wait for anomic and attenuated interaction to occur.
- (3) As for riding on sidewalks, those whom I categorize as Bicyclists say that, unlike Simple Riders, they only used sidewalks as a last resort, when dedicated bicycling

facilities were unavailable, inconvenient, or the road was too inhospitable. Unfortunately, this latter situation was all too common. Just over half of my interview participants reported having car drivers demand that they use the sidewalk, usually by "buzzing" them (passing close and fast), honking horns, shouting, and throwing things at them from their passing car. My own riding experiences corroborate this finding. On three occasions in the course of my research I have had car drivers aggressively demand that I "get the fuck out of the road!", and presumably on the sidewalk, while threatening violence with their vehicle, and/or throwing items at me. Avoiding such antagonistic interactions is an important reason many riders use sidewalks even though often prohibited.²³⁷

Considering which type of rider typically offers each sort of account helps to further distinguish subtypes of Bicyclists from one another. I will elaborate on each in the following paragraphs. Everyday Bicyclists say that safety, efficiency, and courtesy (in that order) are the reasons for their violations of the rules of the road. This sentiment is corroborated by other research (Marshall, Piatkowski and Johnson 2017). As noted, Advocates are hesitant to violate the rules of the road (especially in an official capacity) and instead work to *change* the rules of the road.²³⁸ On the other hand, Activists are distinguished from Advocates by their propensity to violate rules of the road and offer accounts of their deviant tactics similar to everyday Bicyclists. The World Naked Bike Ride (WNBR) and Critical Mass participants I spoke to told me that they participate in the events in effort to make the roads safer, more efficient, and somewhat counterintuitively, less hostile for other riders, even if not themselves.²³⁹ As Angelina, Critical Mass participant, explained: "I think you get a little hardened because you realize how small you are in this sort of city and how exposed you are on a bicycle, and how aggressive

you have to be if you really want to ride every day and not die you have to be aggressive and you have to be an asshole sometimes. Hopefully, it will wake people up to how hard it is to ride a bike around Denver."

While everyday Bicyclists and Activists account for their violations of the rules of the road with appeals to safety and efficiency, and claims of courtesy, Bicycle Laborers offer a single account, an appeal to efficiency, the need to earn as much money as possible per mile/minute ridden. As one bike messenger responded to my questions regarding their scofflaw riding practices, "hell, if I stopped at every light and stop sign, I'd be no faster than a car, what would be the point of riding? And, that's my money man. You know how it is, the more drops you make, the fatter your check is". The situation is even more complex for pedicab peddlers, whose appeals to efficiency also involve their need to maximize the quality of the trip for their customers, which often includes speed and a pleasant ride. For example, I've observed pedicab peddlers violate prohibitions and take passengers up the 16th Street Mall in Denver in order to earn big tips.²⁴⁰ The efficiency imperative that Bicycle Laborers work under incentivizes violating the rules of the road.

Finally, I observed a small number of everyday Bicyclists that acknowledge the deviance of their riding practices and excuse it by claiming it satisfies an innate human need to have fun. In an interview with Angelina, a self-identified Activist, I ask: so why do you blow red lights and stop signs? She answers, "I guess because, in part, I'm a bit of an adrenaline junkie, but you can never win a fight with a car if you're on a bicycle, so the trick is to avoid them. I affirm her response and say, I can appreciate that. She continues, "oh my God, it's thrilling though, like it's thrilling when you can time that light perfectly and

you're like on the brink of death at all times; like there's just something really thrilling about that. I probably shouldn't but I just can't help myself." Another interview participant, Alex, offered his opinion of people who run red lights and stop signs, himself included: "The term asshole comes to mind first. Because they are an asshole, because I'm an asshole when I ride. I'll be honest about that, and I don't fucking care. I suppose I could take up mountain biking and get my fun-fix that way, but it's so much easier just to have fun on the way to work every day."

In conclusion, efforts to negotiate the confusing and contradictory rules of the road can be understood in terms of three efforts that distinguish different types of riders from one another. Bicycling Advocates encourage vehicular cycling, and Reluctant, Simple, and Rec Riders avoid the road. Bicyclists practice what I've termed de facto vehicular cycling in which they judiciously violate the rules of the road in order to realize a sufficient degree of safety, efficiency, courtesy, and fun.

RIDERS' BIKES AND RIDING ACCESSORIES

The fourth, and final, bicycling practice that distinguishes types of Riders one from another is the character of a rider's bike and bicycle accessories, as well as their safety gear, bags, outwear, and specialized apparel (or lack thereof), collectively referred to here as "gear". Not only is the conspicuous consumption (Veblen 1899) of bikes and bicycling gear a way in which riders express enthusiasm for bicycling, the quantity, expense, and specialization of riders' bikes and bicycling gear distinguishes them from one another. Because the volume and variety of bikes and riding gear is vast, and the ways in which it is used ranges widely, in the following paragraphs I limit my discussion to two broad facets

of Riders' material practice, what one rides, and what one wears when riding, to distinguish Rider types from one another.

Reluctant Riders' bikes are typically used or refurbished, obtained at no cost through "earn-a-bike" programs, or very low-cost via private purchase. Rarely do Reluctant Riders' bikes include the required reflectors and the lights required to use the roadway after dark.²⁴¹ Reluctant Riders' bikes are often in disrepair and not functioning to full potential. The (self-identified) homeless Reluctant Riders I spoke to said that not only are tools and parts expensive and hard to come by, but putting money and effort into their bikes is risky because they are often stolen. As noted, when available, Reluctant Riders typically use trailers and other accessories that increased the carrying capacity of their bikes such as baskets and pannier racks. However, only one third of my research participants I would consider Reluctant Riders had access to any specialized bicycling accessory that increased the carrying capacity of their bike. Instead, most skillfully, and creatively secured their belongings to their bikes, often at the expense of comfort or the ability to ride them at all (see Table 5.2 Image G). Reluctant Riders typically ride in their everyday clothes, those that the rider will wear for the day. On more than one occasion in my observations (5, maybe 6), this included a service industry work uniform.²⁴² Reluctant Riders rarely wear safety-oriented items such as helmets or Hi-Viz apparel, and often lack the bicycling-specific outerwear necessary to ride efficiently and comfortably in bad weather.

Like Reluctant Riders, Simple Riders typically do not where specialized bicycling apparel, rather they wear casual, everyday clothes, or non-specialized athletic wear designed for general comfort. However, unlike Reluctant Riders, Simple Riders have no

need for specialized outerwear designed to keep them warm and dry while riding, because they do not ride in poor conditions. Similarly, Simple Riders typically wear minimal safety gear, most often just a helmet. They have no need for Hi-Viz outerwear or reflectors and lights beyond those factory-installed on their bike because they do not ride after dark. While their bikes are typically low to moderately priced²⁴³ (and pejoratively referred to as "department store" bikes by more enthusiastic Riders), ²⁴⁴ because they are new, they typically function as they should, are well-branded, and not customized, sometimes to the point of being poorly fit.

I distinguish Rec Riders and Bicyclists from Reluctant Riders and Simple Riders by their use of relatively expensive, specialized, and/or customized bikes and riding gear. Whereas Reluctant Riders and Simple Riders typically ride whatever bike is most readily available, and wear whatever clothes are practical, Rec Riders and Bicyclists use bikes and riding gear designed for specific bicycling pursuits such as cycling, mountain biking, urban riding, etc., and are willing to spend additional money and/or effort to obtain them. The cost of new bikes in Boulder and Denver specialty bike stores (as opposed to department stores or online wholesalers) range from as little as \$300 for an entry level hybrid cruiser, mountain bike, or a single-speed "fixie", up to car-like prices for bikes such as the Ultimate CF Evo 10.0 Ltd by Canyon, that retails for just over \$15,000. A typical entry-level road bike for new but aspiring cyclist would be Giant's Contend 3 that sales for just over \$500. My interview participants whom I categorize as Rec Riders and Bicyclists reported the cost of their bikes (at purchase) to be between \$500 and \$4200, for an average of \$1700, considerably more than the cost of Reluctant and Simple Riders' bikes.

I also distinguish Rec Riders and Bicyclists from other types of Riders by the degree of specialization of their bikes and riding gear. Rec Riders in Boulder and Denver have a large variety of recreational pursuits and sports in which to engage. From worldclass cycling and mountain biking, to extraordinary opportunities to only "ride park", be it downhill mountain biking, BMX, or cyclocross, with each bicycling pursuit having its own specialized bikes and riding gear. My research participants include a half dozen cyclists (road bike riders), four mountain bikers, one cyclocross competitor, and one former BMX rider, as well as many enthusiastic "urban riders". Urban riders include commuters, Bicycle Laborers, and anyone who rides in urban setting for utilitarian purposes. In many ways urban riding has been marketed, and thus consumed, much like recreational pursuits and sports, and there is a full suite of specialized bicycles and gear devoted to it.245 Not only does this hyper-specialization afford Rec Riders and Bicyclists with endless opportunities conspicuously consume bicycling products, specialized bikes and bicycling gear serve as status symbols that signify a rider as belonging to bicycling-oriented sub or counter-cultural lifestyle group²⁴⁶ such as urban Hipsters and bike messengers.²⁴⁷

As an alternative to purchasing specialized and thus expensive bikes and riding gear, Rec Riders and Bicyclists can also demonstrate enthusiasm by building and/or customizing their own bikes. Hand-built and customized bikes are recognized in several ways. First, they typically lack brand names, and often make use of non-standard frame geometries such as "low rider" and "chopper" style bikes (see Table 5.2, Image I). Others are made of non-standard materials such as cardboard, bamboo, and wood. Hand built and customized bikes are recognized also by their unusual and additional parts such as

faux-gas tanks and "ape hanger" handlebars, as well as missing parts required on commercial bikes such as brakes and reflectors.

During my research, I observed three sub-groups of Bicyclists that are particularly likely to build or customize their own bike.²⁴⁸ Bicycle Laborers, bike messengers in particular, customize their bikes by stripping off high maintenance and expensive parts such as free-wheels / cassettes, shifters, and breaks. The messengers I spoke to said they do it to reduce costs, simplify maintenance, and reduce the bikes' desirability to thieves. However, riding a bike customized in such a manner is also an important status symbol attesting to their courier credibility. Interestingly, this bare-bones bicycle style, along with bike messenger accessories such as bags and apparel have become a staple of mainstream urban riding fashion, and can now be purchased from riding accessory manufactures and retailers. For example, the urban riding accessory and apparel company Chrome "started in a garage in Boulder", and came of age in Denver before moving to San Francisco. Chrome has grown from selling bags to bike messengers out of a windowless store at 23rd St and Champa in Denver to offering a full line of bicycling accessories and performance clothes designed for "urban mobility". 249 Another notable group of Bicyclists that I observed is recumbent bike riders.²⁵⁰ In seeking an increase in the efficiency of the standard "safety bike" geometry, a small group of Bicyclists will purchase or often build recumbent bikes, sometimes adding a windshield to increase comfort and efficiency. Given the additional cost and/or effort required to do so, few PWRB opt for this unique bicycle suggesting riders are indeed enthusiastic Bicyclists. Finally, particularly enthusiastic Cruisers (see Chapter 4) will often ride hand built or customized bikes designed to show off their fun-loving aesthetic and riding style. Since

most Cruiser rides last until after dark, many Cruiser ride bikes are festooned in creative lights.

CHAPTER SUMMARY

To summarize, in this chapter I have presented my observations and interpretation of riders' directly observable bicycling practices. Behaviors such as when, where, with whom, and for what purpose(s) one rides, as well as how frequently, how fast, the route taken, the "rules of the road" adhered to (or not), and the technologies used, including type of bike, safety equipment, apparel, and other gear. Differences in these practices distinguish different types of PWRB from one another and contribute to the question, "who is a bicyclist?" In Chapter 6, I will continue with my effort to address the question by exploring the social psychological differences between types of people who ride bikes – the scenes in which they "perform the bike rider role", the meanings of bicycling and other riders, their motivation for riding, and the boundary work they perform as a person who rides a bike.

CHAPTER 6: STAGING BICYCLING FROM BELOW II – RIDER PERFORMANCES

Chapter 6 picks up where Chapter 5 ends, continuing with the effort to address the question, "who is a bicyclist?" but with more of a focus on the social psychological and interactional differences between the different types of people who ride bikes. To do so, I explore three themes of findings: (5) the number and variety of scenes in which people who ride bikes (PWRB) present their "riderselves"; (6) the meaning of bicycling and PWRB, and Riders' subsequent motivation for riding; and, (7) the boundary work PWRB engage in to manage their impression as a person who rides a bike.

Scenes in which Riders Perform the "Bike Rider Role"

The fifth theme that distinguishes Rider types from one another is the differences in the number and variety of "scenes" in which PWRB "perform the bike rider role". As noted in Chapter 3, Goffman's dramaturgical metaphor and Jensen's *Staging Mobilities* framework heavily inform this dissertation. More so, in Chapter 4, I discussed the different individuals, groups, and organizations that work to "stage" bicycling, and in keeping with the dramaturgical metaphor, I analogize them to "stagers" and the subsequent bicycling infrastructure, laws, programs, and events afforded to riders to elements of the "stages" on which riders perform. Here, I extend the metaphor by introducing the concepts of *roles*, *performances* and *scenes*.

When I write of *roles* I am evoking the common interactionist/dramaturgical understanding of social roles – the thoughts, behaviors, and ways of being that are expected of an individual who occupies a given social position or status, in this case that of people who ride bikes. Roles *per* se are entirely abstract and must be performed to be

realized, and thus are the dramaturgical analog to a performer's screenplay or script in that they prescribe and proscribe performers' action and lines.

Similarly, I use the term *performance* in its interactionist / dramaturgical sense to discuss specific enactments of a role. Performances are limited in time with a recognizable beginning and end, occur in a specific space such as on the road or in a bike store, and have the same audience. As Goffman writes, "I have been using the term 'performance' to refer to all the activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on the observers" (Goffman 1959:22). Everyone who rides a bike performs the bike rider role when they interact with others as a person who rides a bike, a feat most simply accomplished by riding a bike in a place and time observable by others, as well as by verbally acknowledging or otherwise signifying that one rides a bike, even if not at the moment.

Finally, I introduce the term *scene* in an interactionist / dramaturgical sense²⁵¹ to describe a frame (Goffman 1974) of interaction that is distinguishable to both the performers (bike riders), as well as the audience. A scene is the "situation" about which performers and audience share a definition (Burgess and Park 1921).²⁵² While scene-specific roles are performed in ways unique to specific PWRB, the performance is familiar enough as to be recognized by other performers and the audience. Along with roles, other elements of a scene such as the stage and sets (scenery), props and costumes, as well as the audience remain relatively consistent performance to performance within a given scene. For example, riding one's bike at top speed is an important part of bike rider performance in the bicycle race scene, but not a part of performing the bike rider role at

a CBO member's meeting. While bicycling scenes always star people who ride bikes, the specifics of the bike rider role differs from scene to scene, most importantly here the type of Rider that typically performs the bike rider role in a given scene.

Variation in performances of the bike rider role by characteristics such as the gender, race/ethnicity, social class, and age of the rider is an important and relatively well-researched topic (Brown and Sinclair 2017; Krizek et al. 2004; Parkin et al. 2007), even if not framed as a "performance". However, here I focus on the *number and variety* of the scenes in which PWRB perform the bike rider role, and the way that such further distinguish Rider types from one another. In other words, in this theme I focus on the scene and the different types of Riders that perform in it, but not the details of the performances themselves. Based on my observations and analysis, there are nine ideal-type bicycling scenes in which PWRB perform a bike rider role.

I begin by discussing three scenes of "everyday bicycling". Though a robust discussion of everyday mobilities, bicycling included, runs through the mobilities literature (e.g. work by Aldred 2013b; Blue 2015; Horton 2013; Jensen 2009; and others), ²⁵⁴ there is no definitive definition of everyday bicycling, just an implicitly agreed on concept derived from the general study of everyday life and the lifeworld (de Certeau 1984; Felski 1999; Glassner and Hertz 1999; Goffman 1959; Lefebvre 1947). ²⁵⁵ For the purposes here, when I write of everyday bicycling I am referring to the sort of bicycling in which all types of Riders first and most frequently engage. Everyday bicycling is organizationally passive in that it does not require paying a fee, registering as a participant, joining a club, or taking on any organizationally defined status. ²⁵⁶ Everyday bicycling simply requires riding a bike. The everyday bicycling stage is sprawling, ²⁵⁷ and varied enough to accommodate three

scenes of everyday bicycling: (1) car-dominated roadways; (2) calm, neighborhood streets; and (3) car-free facilities such as cycle tracks, multiuse pathways, sidewalks, and trails. Thus, the everyday bicycling audience is comprised of the generalized other (Mead 1934) of nearby, other roadway users (ORUs), most of whom are not other PWRB.

1. Roadways

The most commonly mentioned, yet least popularly performed, scene of everyday bicycling is the road. Here again (see Chapter 5), I use the terms *road* and *roadway* synonymously to discuss car-dominated transportation facilities.²⁵⁸ Because the roads are car dominated, performing the bike rider role in this scene is demanding physically and emotionally due to the speed of traffic, the stress of potentially being hit by a driver, as well as the cognitive dissonance many riders say they experience when violating the rules of the road. As Sasha, says, "I hate getting in peoples' way. I'm really not one of those sorts of bicyclists. But sometimes it's impossible to not piss them off". Unsurprisingly, few PWRB are able or willing to perform the bike rider role in a roadway scene, and performances are limited to "strong and fearless" Bicyclists (Dill and McNeil 2013, 2016) such as experienced bicycle commuters, enthusiastic cyclists, Bicycle Laborers and other riders whom are competent and confident enough to play the bike rider role in a scene in which they are cast as interlopers and antagonists in a space dedicated to cars.²⁵⁹

2. Streets

The second scene of everyday bicycling is staged on calm, neighborhood streets.²⁶⁰ Due to the volume and speed of traffic in the road, interaction between bike riders and car drivers is attenuated and mediated (Conley 2012; Jensen 2013; Randell 2017). Direct,

face-to-face communication is limited and expressions, both given and given off (Goffman 1959) via appearance, manner of riding/driving, and hand/light signals alone are insufficient to avoid conflicts and collisions. Thus, roadway users must rely on technology and formal rules to guide their behavior, and trust that others know and will adhere to them as well. However, in the street "mobile looking" (Conley 2012) is possible affording riders (even those without the knowledge and skills necessary to ride in the road) and other street users the opportunity to communicate face-to-face, convey intentions, and coordinate their movements to avoid conflicts and collisions. In the streets, there are few opportunities, and even fewer reasons, for conflict, not only because car traffic is light, but also because the "roads are for cars" norm (see Chapter 5) is weak and sanctions are mild, if applied at all.

This makes the street scene much less demanding, and affords Simple Riders, such as kids and those new to bicycling, as well as Bicyclists who are not sufficiently "strong and fearless", an opportunity to perform the bike rider role in a scene of everyday bicycling. Even the majority of my interview participants that I classify as enthusiastic Rec Riders and Bicyclists noted the importance of calm neighborhood streets to their childhood riding experiences, and thus their adult performances of the bike rider role. Though Bicyclists may come of age in the road, they are born in the streets.

Given that Reluctant Riders often do not have the appropriate bike, riding gear, and/or the ability to ride in the road successfully²⁶³, calm neighborhood streets would seem to be the perfect scene in which they might play the bike rider role. However, my research participants that I classify as Reluctant Riders (most of who are not precisely typical) reported avoiding neighborhood streets, residential ones in Boulder in particular

due to feeling unwelcome. Initially, I believed their feelings to be the result of a generalized feeling of exclusion. However, a later analysis of social media posts corroborated their sentiment. The analysis showed that riders who appear to be homeless are frequently suspected of obtaining their bicycles illegally (via theft or receiving stolen property), and residents are quick to inform the police, and the riders, of their suspicion. ²⁶⁴ This draws attention to Reluctant Riders, many of whom are eager to avoid it (even if their bikes are legally obtained), and makes calm, neighborhood streets a difficult scene for Reluctant Riders to successfully perform the bike rider role.

3. Car-free Facilities:

The final scene of everyday bicycling is staged on the car-free spaces of the everyday bicycling stage. There are three kinds of car-free facilities: (1) cycle tracks and bike-priority pathways, (2) multiuse pathways and sidewalks, as well as (3) recreational bicycling amenities. Different types of Riders typically perform the bike rider role on different kinds of car-free facilities.

Cycle tracks, especially those that run parallel to car-dominated roads, share many characteristics with those roads (see Table 6.1).²⁶⁵ Typically, they are paved, with directional and mode segregating lanes, way-finding signage, speed limits, etc. Though cycle tracks separate riders from car traffic, they require riders to interact with roadway traffic at intersections and curb cuts. More so, the volume and speed of bicycle traffic on urban cycle tracks can be relatively high for bikes, especially at peak hours. An urban cycle track at rush hour, like the Broadway bike paths in both Boulder and Denver, is not a place to stop and linger, or venture outside of one's designated lane. Just because cycle tracks are car-free does not mean that they are stress free. ²⁶⁶ And though not as stressful

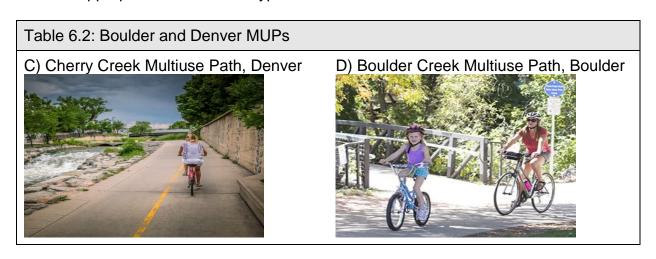
as the roadway, urban cycle tracks require a higher degree of knowledge of the "rules of the road" than calm neighborhood streets. Thus, like the road, Bicyclists typically perform the bike rider role on cycle tracks and bike-priority pathways, though they are not necessarily limited to "strong and fearless" Bicyclists (Dill and McNeil 2013).

Table 6.1: Boulder and Denver Cycle Tracks

A) 13th St Cycle Track, Boulder

B) Broadway Cycle Track, Denver

Multiuse pathways (MUPs) and sidewalks are facilities shared by bike riders, pedestrians, and practitioners of other non-motorized modes of embodied mobility (see Table 6.2).²⁶⁷ Like calm neighborhood streets, MUPs, especially those that avoid roads (via bridges and underpasses), follow creeks, and run through other green spaces, are typically calmer than roadside cycle tracks, in a way similar to the road / street distinction. A low level of knowledge and skill is needed in order to use them successfully, making them an appropriate scene for all types of Riders.²⁶⁸



Insomuch as Simple Riders typically bicycle with low levels of enthusiasm and for recreational purposes, they prefer MUPs and sidewalks (along with calm neighborhood streets) because they afford a low stress opportunity to ride that car-dominated roads, that busy cycle tracks do not. Interestingly, much like Reluctant Riders desire avoid neighborhood streets, several research participants mentioned avoiding the more urban and secluded MUPs out of a desire to avoid unwanted interaction with the Reluctant Riders that often congregate there. One interview participant, whom I classify as a moderate-enthusiasm Bicyclist, adds almost 50% to her trip to/from work in order to avoid a stretch of secluded MUP in Denver for this reason. She also mentioned that many of her friends and colleagues also do the same, which reduces the frequency with which they ride because they find the alternative roadways similarly off-putting. However, such sentiment is rare, and most MUPs and sidewalks are the perfect scene for Simple Riders and Bicyclists who wish to perform the bike rider role in a scene other than the road.

Due to their reluctance to perform the bike rider role in roadway or neighborhood street scenes, Reluctant Riders' performance of the bike rider role is typically limited to pathways and trails, especially those that follow creeks and are lined with vegetation and places to linger out of the sight of other users. Many Reluctant Riders want to avoid the scrutiny of municipal officials, the police in particular, and riparian MUPs afford Reluctant Riders the seclusion that they desire. The Boulder Creek path, along with the South Platt River and Cherry Creek paths in Denver are well-known examples of MUPs on which Reluctant Riders perform the bike rider role.

Finally, recreational trails, bike parks, and velodromes are bicycling amenities used exclusively to facilitate bicycling sports and recreational pursuits.²⁶⁹ As discussed in

Chapter 4, Boulder and Denver are home to many international-caliber recreational bicycling facilities and events that afford Rec Riders of all levels of enthusiasm a wide-array of opportunities to perform the bike rider role. 270 With such in mind, I use the term trail to connote a smaller, less improved MUPs found in bike parks and rural areas. Rural trails often are "single track" with unpaved, if not entirely unimproved, surfaces. Bicycle traffic is typically light, but still relatively "fast and tight" compared to other trail users, most importantly hikers and horse riders. *Bike parks* are a collection of paths, trails, tracks, ramps, and other physical features used exclusively to facilitate competitive bicycling pursuits including BMX, downhill mountain biking, and cyclocross. A *velodrome* is an arena for track cycling that features steeply banked oval tracks, consisting of two 180-degree circular bends connected by two straightaways. Velodromes are both indoor and outdoor, and the Boulder Valley Velodrom, located in Erie, CO, is an outdoor track. 272

Table 6.3: Recreational Bicycling Facilities

E) Single track trail near Boulder

F) Boulder Valley Velodrom, Erie

G) Valmont Bike Park, Boulder

H) Ruby Hill Bike Park, Denver

Because bicycling on rural trails, bike parks, and velodromes requires specific riding skills and techniques, and is very often competitive, the typical Rider who performs the bike rider role here is an enthusiastic Rec Rider. The specific scene in which an enthusiastic Rec Rider performs the bike rider role depends on their specialized bicycling pursuit: mountain bikers bomb down the foothill trails, while BMX, cyclocross, and track riders perform in the area bike parks and velodromes. In addition to everyday bicycling, practices and competitions are staged on these facilities, and are scenes that afford Riders the opportunity to perform the bike rider role beyond everyday bicycling. I discuss these sorts of bicycling scenes next.

In addition to the aforementioned three scenes of everyday bicycling, I have identified six organized scenes in which PWRB perform the bike rider role: (4) rides and races; (5) celebrations and protests; (6) meetings; (7) classes, lessons, and practices; (8) third places; and (9) at work. In contrast to organizationally passive, everyday bicycling scenes, participation in these scenes is organizationally active. This means that in addition to riding a bike, riders must attend, sign up, purchase, pay, join, or otherwise affiliate themselves with a formal bicycling stager to perform in one of these scenes. Taking such as an expression of moderate to high enthusiasm, I consider everyone who performs the bike rider role in any of these organized scenes to be either a Rec Rider or a Bicyclist by virtue of doing so. More so, these organized bicycling scenes are interactionally more complex than everyday bicycling scenes and afford PWRB opportunities to perform the bike rider role in subtle and nuanced ways that further reveal distinctions between Rec Riders and Bicyclists, as well as between Bicyclist subtypes (Advocates, Activists, and Bicycle Laborers). In the following paragraphs, I again

summarize the scenes in the order of the frequency with which they were mentioned by my research participants, while paying special attention to details that distinguish subtypes of Bicyclists from one another.

4. Rides and Races:

Rides and races are bicycling scenes in which participants ride a prescribed course with a distinct start and finish, over which they are tracked, timed, and/or ranked according to their performance. Rides are non-competitive, and riders participate for a charity, and/or the fun of it. Rides have few if any spectators because most of those involved are participants in the ride itself. On the other hand, races are competitive events that feature relatively few Bicyclists competing for esteem and money, and most in attendance are spectators.²⁷³

Insomuch as all rides and races are instances of recreational bicycling, performing the bike rider role in one is typical of Rec Riders. Even if an individual also rides for utilitarian purposes, when participating in rides and races they are performing the bike rider role in a manner typical of Rec Riders. Furthermore, rides and races are a scene in which differences in the enthusiasm of different types of Riders is apparent. As noted, Reluctant Riders and Simple Riders do not participate in rides or races, and their absence from rides and races is a clear indication of their low enthusiasm for bicycling. Participation in non-competitive "fun rides" such as a Denver Cruiser Ride, or the B360 is an expression of moderate enthusiasm, and appearing in serious rides and races such as the Buffalo Bicycle Classic's 110-mile Buff Epic ride, or the Colorado Classic, especially as a member of an elite or professional team, is an indication of high enthusiasm. Also, rides and races are a scene in which the subtler aspects of the Rec

Rider performance are readily observed. Rides and races afford Rec Riders the opportunity to perform highly specialized (thus enthusiastic) bike rider roles such as cyclist or mountain biker by using specialized bikes and gear as props for an interested and knowledgeable audience of other PWRB that know the difference between a downhill and an enduro mountain bike race, or the cost, and cachet, of *CeramicSpeed's* new OSPW derailleur.

5. Celebrations and Protests

Bicycling celebrations and protests are the utilitarian counterpart to recreational rides and races. They are festive and lively gatherings staged as affirmations of bicycling as an alternative to driving a car, and thus Bicyclists.²⁷⁴ Like rides and races, the difference between celebrations and protests is primarily analytic, but serves to highlight important organizational and symbolic differences between the events that reflect the advocacy / activism distinction discussed elsewhere. Here, I use the term celebration to connote festive gatherings staged by institutionalized (formal) bicycling organizations such as municipal officials, professional bicycling advocacy organizations, and bicycling businesses, as affirmations of bicycling and PWRB. At celebrations, participants behave in accordance with laws and informal social norms, and the formal criticism of hyperautomobility and people who drive cars is minimal, if present at all (although implicit criticism is difficult to avoid) – celebrations are very "pro-bike". I use the term protest to describe non-institutionalized, lively gatherings staged by DIY Activists in which a large proportion of participants engage in deviant, if not illegal, activities such as violating traffic laws, impeding car traffic, vandalism, or worse.275 At protests, the criticism of hyperautomobility, and thus to some extent people who drive cars, is overt and often fierce. ²⁷⁶

Performing the bike rider role in a bicycling celebration or protest is typical of Advocates and Activists. Recall that to be an Advocate or Activist a rider must do more than engage in acts of personal advocacy or activism. Moreover, because few PWRB have the expertise or enthusiasm necessary to work as a volunteer, paid staff, or professional Advocate, nor the motivation or moxie to join in a protest, performing the bike rider role in celebrations such as Bike to Work Day or the Boulder Green Streets Ciclovia is a common, "entry-level" opportunity for Everyday Bicyclists become full Advocates. Again, Chapter 4 provides additional details on specific bicycling celebrations and protests observed in Boulder and Denver.

6. Meetings

Bicycling *meetings* are scenes staged to afford PWRB, as well as those who do not, an opportunity to share their thoughts and experiences about bicycling. There are two types of bicycling meetings: (1) those in which both PWRB, and those who do not, have a role, and (2) those at which all participants are PWRB who hold favorable opinions of bicycling. I refer to the former as "open" or "public" meetings, and the latter as "members-only" meetings. Typically, municipal officials stage public meetings, while member-based bicycling-oriented organizations such as CBOs and bicycling clubs stage members-only meetings.

The public meeting scene is different from the preceding scenes in several ways that further distinguish subtypes of Bicyclists from one another by revealing nuanced and subtle aspects of their bike rider performance.²⁷⁷ Unlike rides, races, celebrations and

protests where the bike rider role prominently features riding a bike together with other PWRB, at public meetings the bike rider role calls for an *off-bike* and solo performance, for an audience that is likely to include bicycling adversaries. Rather than simply riding a bike, in public meetings riders speak in support of bicycling and PWRB. In all but a few of the public meetings I observed, participants introduce themselves and explain their interest in the meeting. This introduction typically went something like "Hello my name is ____ and I am a bicyclist/biker/cyclist. I am here to speak in support of ____ (some bicycling program or project)". In the public meeting scene, the performance is all about what the Bicyclist says, not how they ride. This is important because it suggests that not only is riding a bike alone insufficient to be considered a Bicyclist, being a Bicyclist does not necessarily require riding a bike, at least at any given moment.

In rides, races, celebrations, and protests Bicyclists collectively perform the bike rider role in an ensemble of performers, what Goffman (1959) called a performer's "team". However, the bike rider role at public meetings is typically a solo performance. What is more, at public meetings (as well as protests) the audience typically includes non-riders many of whom are bicycling adversaries and play the dramaturgical equivalent of a heckler. Altogether, this makes successfully performing the bike rider role at public meetings challenging, and a role that few Bicyclists are willing to perform, unless it is their job (paid and professional Advocates).²⁷⁹ Thus, performing the bike rider role at public meetings is an indicator of strong enthusiasm for bicycling. And like participating in bicycling celebrations, is a way that Everyday Bicyclists become Advocates.²⁸⁰

7. Learning to Ride

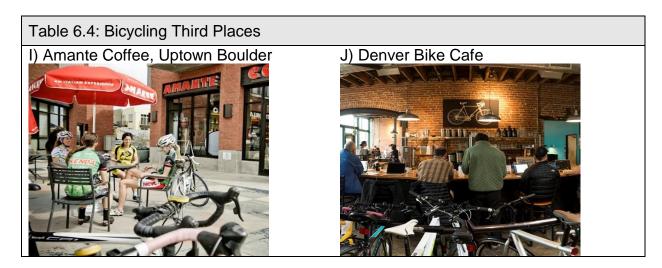
Bicycling classes, lessons, training sessions, and practices are a special sort of bicycling scene in which the classic teacher-student archetypes structure the performances. In this scene veteran Bicyclists teach and train novice riders the knowledge and skills necessary to successfully perform the bike rider role - from basic riding and mechanical skills (classes and lessons) to advanced racing techniques (training sessions and practices). Bicycling classes and lessons primarily are staged by CBOs, while bicycling clubs and teams stage training sessions and practices.²⁸¹ The difference between classes and lessons, and training sessions and practices is primarily one of utilitarian versus recreational purposes for bicycling. In classes and lessons, the instruction focuses on riding a bike safely and competently, including making basic repairs. Typically, bicycling Advocates teach classes and lessons at the local CBO bike shop and in schools, as is the case with the Boulder Valley School District's B.L.A.S.T. classes. Practices and training session are recreational in their focus. Here bicycling coaches and trainers, such as those who work for Boulder Junior Cycling, teach Bicyclist to become competitive riders and racers.

Performing the bike rider role in classes, lessons, training sessions, or practices represents another way that Reluctant and Simple Riders can increase their enthusiasm and become Rec Riders or Bicyclists. For example, Shawn shares many characteristics with my research participants I categorize as Reluctant Riders in that he is marginally homed and car-less. And while he wishes he had a car, since he doesn't, he happily rides the free bike he earned at a CBO's "earn-a-bike" program and credits the program for teaching him to enjoy bicycling. Also, Rita attributes the rekindling of her childhood love

of bicycling to participating in a "learn-a-bike" course. Both observations represent examples of Riders becoming Bicyclists.

8. Third Places

The next scene in which I observed performances the bike rider role is a diverse collection of gathering places that I generally describe as "third places" (Oldenburg 1989). Like all third places, the third places where Bicyclists congregate are neither home nor work, public. They are places open to all, where the mood is convivial, and conversation, along with conspicuous consumption, are the primary activities. Examples of specific bicycling third places I observed include CBO bike shops, specialty bike stores, cafés, and bars (sometimes all at once),²⁸² as well as bike parks, and various "hang-outs" such as outdoor plazas and transit stations. In these scenes, Bicyclists again perform the bike rider role off-bike by *talking* about their bicycling experiences and desires, the bikes and gear they have and want, and the type of rider they see themselves to be.²⁸³



The third place scene is similar to members-only meetings in that the performance is primarily off-bike and verbal, and the audience is comprised of other PWRB. Like rides and races, many bicycling third places are specific to particular bicycling purposes and

pursuits and allow Bicyclists to perform a specialized bike rider role. For example, in Boulder most of the riders hang out at Community Cycles are moderate to high enthusiasm Bicyclists, while those that gather at the uptown Amante Coffee are cyclists (Rec Riders). In Denver, the Denver Bicycle Café is a third place for both urban hipsters and bike messengers alike. Insomuch as one cannot conspicuously consume without an audience of interested others, the third place scene is particularly important to bicycling-oriented lifestyle groups, such as urban hipsters whose distinctiveness depends on the conspicuous consumption of a certain style of bikes and bicycling commodities.

9. On the Job

The final sort of scene in which Bicyclists perform the bike rider role is on the job.²⁸⁴ In the course of my research, I observed a large variety of performances of the bike rider role for which Bicyclists "get paid" (as several research participants described it). However, beyond the key feature of being paid, bicycling-oriented, work-related roles vary considerably in terms of the stage on which they are performed, the essential elements of the bike rider performance, the audience, as well as the type of Bicyclist most likely to enact the bike rider role, making a detailed discussion of each beyond the scope of this dissertation.

However, a brief discussion distinguishing two primary work-site scenes is worth having. I divide bicycling-oriented jobs into two broad categories: PWRB "get paid" to either (1) ride a bike, and/or (2) stage others' bicycling. I refer to the former category as Bicycle Laborers and have thus far discussed the latter across this dissertation in terms of those who work for any of the bicycling stagers discussed in Chapter 4. This includes

paid and professional Advocates, bikes store proprietors and employees, bicycle guides, coaches, and instructors, as well as professional competitors and performers.

Because of the attention already given to bicycling stagers, here I focus the discussion on Bicycle Laborers.²⁸⁵ Specific Bicycle Laborer jobs include: (1) bike messengers, the archetypical Bicycle Laborer, and for whom no explanation is needed. (2) App-dispatched riders (ADR) and food delivery riders (FDR) perform a role very similar to bike messengers but rather than being employed by an established courier company, work independently using Uber-like dispatching apps from companies such as Postmates and Uber-Eats. Working for a large, well-known courier company such as Denver Boulder Couriers, provides bike messengers with additional interactional props and opportunities to perform the bike rider role. Most importantly, it provides a group affiliation and degree of familiarity with coworkers and customers that ADR and FDR do not experience. Evidence of this group affiliation includes the display of company logos on bags, jackets, etc., as well as the opportunity to "hang out" with other bike messengers between runs. Throughout the course of my research, I regularly observed Denver Boulder Courier bike messengers doing so at Union Station in Denver and outside the company offices in Boulder. And finally, (3) are pedicab peddlers. Unlike other Bicycle Laborers, pedicab peddlers work to "sell" a ride, thus the double-entendre moniker "peddler". Also, unlike the other Bicycle Laborers, rather than delivering items to customers, pedicab peddlers' deliver the customers.

The essential feature of the Bicycle Laborer role is the duty to transport things, everything from people and packages to pizzas, by bike. This means that the Bicycle Laborers perform the bike rider role on-bike and for utilitarian purposes. I specifically

observed Bicycle Laborers performing in downtown Boulder and Denver, as well as the East Boulder and Cherry Creek neighborhoods. Pedicab peddlers typically perform on the roads, streets and MUPs around nightlife and entertainment venues such as the Pearl Street Mall in Boulder, and the LoDo neighborhood in Denver.

While Bicycle Laborers are paid to ride a bike, the essential characteristic of those working for bicycling stagers is the duty to stage bicycling in such manner as to get more people to ride a bike more frequently and more safely, especially as an alternative to driving a car. While such may occasionally require one to ride a bike as a part of the performance (instructors, coaches and competitors in particular), typically, it is an off-bike performance, enacted in offices, bike shops, stores, and meetings.

Discussion

If one is to be a Bicyclist they must play the role, after all, as Makala, put it "riders gotta ride". By exploring the number and variety of the scenes in which PWRB perform the bike rider role, the differences between the types of Riders, subtypes of Bicyclists in particular, becomes clearer. Reluctant Riders avoid all but the most accessible and anonymous of bicycling scenes, typically multiuse pathways. Their inability or unwillingness to perform the bike rider role in organizationally active bicycling scenes is indicative of their lack of enthusiasm for bicycling and contributes to their "invisibility" as PWRB (Golub et al. 2016; Koeppel 2006; Lam 2017). Like Reluctant Riders, Simple Riders do not perform the bike rider role in organizationally active scenes. But unlike Reluctant Riders, here the distinction is analytical. As a matter of perspective, it is by achieving an organizationally active status, that a Simple Rider becomes a Rec Rider or Bicyclist. That is, Bicyclists are literally socially constructed.

Furthermore, Bicyclists and Rec Riders perform the bike rider role in the greatest number of bicycling scenes and play the largest variety of roles – as indicated by my analysis here, all of them.²⁸⁶ Rec Riders are the participants in the charity ride, and the competitors in the race. They are the fans in stands and the coaches in the chase car. Bicyclist are the volunteers, staff, and professionals running advocacy organizations, and the protestors all up in the middle of the road. They are the messenger rushing your package across town, delivering your dinner, and pedaling you home after a night on the town.

To conclude, the analysis of bicycling scenes reveals that bicycling can go beyond one's everyday embodied mobility and become an essential aspect of the performance of one's lifestyle and occupational identities (a finding corroborated by Kidder 2006; Furness 2010, and others). The performance of the bike rider role in scenes beyond everyday bicycling makes the Bicyclist identity an even more salient aspect of one's self-conception (Stryker 1980); so much so that for Bicyclists, bicycling is not just what one does, but is a central feature of who they are.

RIDERS' MEANING OF, AND MOTIVATION FOR, BICYCLING

The sixth distinguishing theme to emerge from my data analysis involves the meaning of bicycling and people who ride bikes (PWRB), and Riders' subsequent motivation for riding. Recall the discussion in Chapter 1 and theme three regarding the purposes for which people move their bodies about. There, I use the term *purpose* to denote an understanding of everyday embodied mobility that emphasizes the fundamental reasons for which people move their bodies about, *regardless of the mode used* – for utilitarian purposes such as commuting to work and school, shopping, other errands, and for work

itself, as well as for recreational purposes such as fun, fitness and friends. Here, I use the term *motivation* in a similar, but not precisely synonymous, way.²⁸⁷ While I use the term *purpose* to denote the reasons people "take trips" at all, I use the term *motivation* to discuss the reasons for which people *ride bikes*, which most importantly includes the meaning of bicycling and people who ride bikes. When I write of the *meaning* of bicycling and PWRB, I am referring to what people, my research participants in particular, believe to be the symbolic significance, the value and importance, of bicycling and PWRB. A primary tenet of the symbolic interactionist approach to understanding behavior says that people are motivated by, and behave according to, symbolic meanings.²⁸⁸ Thus, as a matter of perspective, the meaning of bicycling and PWRB, including one's own identity as a person who rides a bike, is an important source of motivation for bicycling, or not.²⁸⁹

Extant research shows that people ascribe a wide-range of complex and conflicting meanings to bicycling and PWRB. While it is unsurprising that PWRB generally express more positive meanings than those who do not ride (Daley and Rissel 2011), such is not necessarily true, especially when it comes to *other* PWRB (Aldred & Jungnickel 2010). As Skinner and Rosen (2007) note, "hell is other cyclists" (P.83). And though clearly related, to the meaning of *bicycling* and being a *person who rides a bike* (PWRB) are not the same thing. For example, when bicycling is believed to be dangerous and difficult, PWRB are seen as "risk takers and law breakers" (Daley and Rissel 2011), deviants (Pooley et al. 2011), and people to be feared (Horton 2007). When the meaning of bicycling is "clean and green", PWRB are seen as healthy and virtuous (Daley and Rissel 2011). The meaning of bicycling and PWRB also varies by the purpose of the riding, with

recreational purposes being viewed more positively than utilitarian ones, especially work done by bike messengers and food delivery riders (Daley and Rissel 2011; Lee 2018).

The meanings for bicycling and PWRB observed among my research participants reflect this complexity, and my participants expressed a range of meanings. As a matter of perspective, in this section, I primarily focus on the positive meanings, those that motivate people to ride bikes. A thorough exploration of the negative meanings of bicycling and PWRB is an important project in its own right, and as such is beyond the scope of this dissertation. I intend explore the negative meanings of bicycling and PWRB, those that make riding a bike difficult, in another paper.

During my research, I observed six motivational meanings of bicycling and PWRB. In the following paragraphs, I start with the most common meanings, those expressed by the most types of Riders, and proceed to less popular meanings. I then discuss how these meanings distinguish different types of Riders from one another.

First, my research participants all but unanimously believe bicycling to be a healthy activity that contributes to an active lifestyle and subsequent health benefits, physical as well as mental and emotional. Bicycling will lower your weight and blood pressure, you will feel less stress, have better sex, and the list goes on. As Tyrone noted, "you're healthy, you're happy, you're breathing fresh air, what else could you want out of your trip to work?".

Second, a majority of my research participants consider bicycling to be fun in two distinct ways. First, there is enjoyment and an intrinsic satisfaction that comes from a relaxing summer's evening ride around the neighborhood, from the thrill of the race, and from the boost of energy that comes from the morning ride to work. As Angelina (a twenty-

something, white, female, alley cat participant) put it, "[bicycling] is super fun, it makes you feel like you're six years old". Or, as Tyrone said, "to be surrounded by bicycles is like just probably one of the best feelings in the world, it's so great. And everyone has shit eating grins on and everyone is super pumped, I never see that in traffic." Second, bicycling is fun because it affords Riders an opportunity for self-expression and sociability (Simmel and Hughes 1949). It facilitates interaction between family, friends, and other PWRB. Winona shared the following: "I started mountain biking with my best friend, and so that was like part of our every weekend we would hit the national forest and you know go on single tracks and like have so much fun. And that was a huge adrenaline rush for me and then I wanted to incorporate that into my every day routine. Now, I mean, I feel like every single friend of mine rides a bike, yeah." (Laughs)

Third, my research participants believe bicycling to be economical. As noted in Chapter 1, riding bikes is considerably less expensive than driving a car. This is true at personal and household levels, as well as at a societal level.

Fourth, my research participants believe bicycling is efficient, again at individual, household, and social levels. The majority of people that are motivated to ride by its efficiency spoke of such at individual level. For them, bicycling provides more autonomous mobility, or "freedom and flow" as Jade, put it, than a car can provide, especially in congested urban settings such as Boulder and Denver. But also, as discussed in Chapter 1, riding bikes requires less energy, infrastructure, and thus cost less than driving cars, and provides additional health and social benefits to riders.

The fifth motivating meaning of bicycling is that it is green. As noted in Chapter 1, bicycling does less harm to the natural environment in several ways, from killing fewer

animals, to producing less air and water pollution. However, just over one third of my participants mentioned that they are motivated by this belief, and those that are, spoke specifically of climate change and the CO₂ cars emit. For example, Emily said, "Yeah, it definitely is climate change issues. I feel like the rate at which we as a world are putting CO₂ into the air, is not sustainable. And so, I know me biking to work doesn't solve the problem, but it is my contribution to the effort."

Finally, several of my research participants believe that insomuch as hyperautomobility is implicated in several of society's most serious and intractable social, economic, environmental, and health-related problems (see Chapter 1), bicycling as an alternative to driving is just, the right thing to do. They believe that bicycling is, or has the potential to be, a key element in a broader effort of transportation/mobility, social, and environmental justice (Furness 2010; Golub 2016; Hoffmann 2014; Illich 1974; Lowe 1989; Lugo 2018). Bikes are a simple, sustainable, and appropriate technology. Bicycling avoids environmental harm, mitigates economic inequality, builds community, and facilitates a healthy lifestyle. As Noah ponders, "it is an interesting thought to think that maybe in some ways it is not about buying a bigger, fancier more expensive car, but actually maybe, you had mentioned simple living, maybe it is sort of, it is so counterintuitive to what consumerist and capitalistic society tells us how we gain that autonomy and social justice".

Though such is not explicit in the comments of my participants, the meaning of bicycling and PWRB that they express can be grouped into two categories. Meanings one through four (bicycling is health, fun, economical and efficient) are fundamentally egoistic insomuch as they motivate riders to bicycle for their own benefit.²⁹⁰ In contrast, meanings

three and four (bicycling is economical and efficient) when applied to society, along with meanings five and six (bicycling is green and just), are more altruistic in that the motivate riders to bicycle for the benefit of others. With this distinction in mind, I now discuss how these six meanings distinguish different types of Riders from one another.

A typical and distinguishing feature of Reluctant Riders is the large number of negative meanings of bicycling and PWRB. My research participants that I categorize as Reluctant Riders told me of the many ways that bicycling is believed to be difficult, uncomfortable, dangerous, draws unwanted attention from other roadway users and officials, and/or makes you the target of thieves. They are the only type of PWRB that do not see bicycling as fun. However, Reluctant Riders also recognize that there are positive aspects to bicycling, even if they are not realized voluntarily. While less desirable than driving a car, riding a bike is more efficient than walking, and less expensive (more economical) than mass transit. Austin, a 40-something year-old male, summarized his bicycling situation like this: "it's better than walkin' your ass all over town. And it's cheap, no gas or insurance to buy. But I would definitely dig a car. I mean, you can't sleep in your bike. Right? You know what I mean, man?"

Furthermore, the meaning of bicycling for Reluctant Riders varies by audience. Among their peers, a bike is a symbol of relative health, wealth, and autonomous mobility, especially if they also have a trailer. Among Reluctant Riders, a bike and trailer are status symbols that distinguish between the merely "down and out", from those who have "hit rock bottom".²⁹¹ At the same time, Reluctant Riders believe that in the eyes of drivers and more enthusiastic riders, their bicycling is a sign of poverty and disrepute, motivated by their carlessness (a belief that my research here corroborates). When asked to elaborate,

John, a white male in his 60s said, "you know, those guys in their tight little outfits, riding to work, or where ever it is they go, I know they're looking down on me because I don't have a fancy bike. But screw them; I don't let it bother me anyway". The others participating in the discussion nod in agreement. For Reluctant Riders, this perspective makes PWRB either privileged (healthy, wealthy, and have a "desk job" that accommodates bicycling), or car-less like just like them. Typically, the meaning of bicycling for Reluctant Riders is complex, and tends to dissuade almost as much as motivate them to ride.

Unlike Reluctant Riders, typically Simple Riders have a straightforward and uncomplicated view of bicycling and PWRB, especially those who ride in a manner like themselves (casually, for recreational purposes). Riding a bike is all about the fun (both types), fitness, and relaxation it affords the rider. Accordingly, PWRB who ride bikes for recreational purposes are believed to be good people enjoying a clean, fun, and healthy activity. Typically, Rec Riders hold similar meanings of bicycling; clean healthy fun, but practice riding more enthusiastically. Also like Simple Riders, the riders I consider to be Rec Riders did not mention the economic, social, and environmental benefits of bicycling as an alternative to driving, at least not as a motivating meaning. This is presumably because Rec Riders don't typically ride as an alternative to driving. As mentioned (see Theme Two), Rec Riders often ride in addition to driving, and even make additional trips by car when then transport their bike by car to remote trailheads and bike parks to ride.

As types, Simple Riders and Rec Riders disagree with meanings that might be politicized, or frame bicycling as anything more than a fun, healthy, and voluntary activity. They do not believe that bicycling is for everyone, nor a realistic way to address the costs

of hyperautomobility. Thus, Advocates and Activist are "bike nuts" who unsympathetically and condescendingly try to force people to ride for purposes they do not want to, i.e. utilitarian purposes. Bicycling staging that inconveniences, disincentivizes, or limits car use provokes annoyance if not outright anger. During an *in situ* discussion after a public meeting on the proposed installation of a cycle track that would reconfigure the roadway from four to three general purpose lanes, one participant (white, male, mid to late 50s) put it like this: "I like to bicycle as much as the next guy, but I know cycling is not for everyone. Those whack jobs working for the city, either don't realize, or don't care, that most people need their cars to get around. We can't all afford to live in Boulder [even though he did] and live close enough to our desk job to make biking practical. What about people who have to transport tools and supplies? Or moms taking kids to school and then going to work? Who wants to have their morning commute take over an hour?" 292

Bicyclists typically express the greatest number and variety of positive meanings of bicycling and PWRB. Bicyclists share Simple Riders' and Rec Riders' belief that bicycling is fun and healthy. And like Reluctant Riders, Bicyclists typically consider bicycling to be inexpensive and efficient at a personal and household level. In addition to these egoistic meanings, Bicyclists also express meanings of bicycling and PWRB that are more altruistic. They believe that bicycling is less expensive and more efficient, not only for their selves, but for all of society. They also believe that bicycling is green and thus good for other people, "the environment", as well as their selves. But unless prompted by me in discussion, Everyday Bicyclist did not express the belief that bicycling was just, and the right thing to do. Altruistic meanings of bicycling not only motivate them to ride, but also to see others ride bikes more frequently and safely. Unsurprisingly, all

four of the altruistic beliefs are held by every one of my participants I consider to be Advocates and Activists, and a majority of my Everyday Bicyclists noted that the altruistic meanings of bicycling motivated them to practice personal advocacy. And while convinced of their beliefs in the goodness of bicycling as an alternative to driving, they are more ambivalent about the meaning of Bicyclists, including their own "riderselves", and Advocates and Activists in particular. I further explore the meanings of the different types of people who ride bikes in Theme 7. Table 7 summarizes the meanings and motivations I observed.

Table 7: Meanings of Bicycling and PWRB by Rider type						
	Reluctant Riders	Simple Riders	Rec Riders	Everyday Bicyclists	Advocate & Activist	Bicycle Laborer
Healthy	0	Υ	Υ	Y	Y	0
Fun	N	Υ	Υ	Y	Y	Υ
Economical (personal, household) Economical (societal)	Y O	0	0	Y Y	Y Y	Y O
Efficient (personal, household) Efficient (societal)	Y O	0	0	Y Y	Y	Y O
Green	0	N	N	Y	Y	0
Just, the "right" thing to do	N	N	N	0	Y	0

Y = belief typically espoused

N = belief typically rejected

O = belief typically not considered, or did not come up in discussion

RIDERS' BOUNDARY WORK

The seventh, and final, theme extends the discussion of the number and variety of scenes in which Riders perform the bike rider role (Theme 5), as well as the discussion of the meanings of bicycling and PWRB (Theme 6), by framing such as co-emergent elements of Riders' self-concept as a person who rides a bike, what I refer to here as one's

"riderself". Derived from Goffman's (1959) notion of the "presentation of self", and Randell's (2017) conceptualization of an "autoself" (see Ch3), the "riderself" emerges from one's social interaction as a bike rider, i.e. when one becomes mindful of their performance of the bike rider role. Like with the self in general, PWRB desire to perform the bike rider role in manner to give off "impressions" that are consistent with the shared definition of the situation and allows the rider to maintain, or "save" face (Goffman 1959, 1967). However, this impression management is not always easy given the various meanings of bicycling and PWRB. Depending on the scene in which they are performing the bike rider role, and thus the action and lines expected and props available, saving face is difficult for many PWRB. Unlike one's self-conception, the meanings of PWRB (bike rider identities) are both subjective (who I think I am) and objective (what others think of me), as well as often stigmatized and/or simply incongruent with other aspects of one's idealized self-conception. Thus, bike riders qua performers engage in a sort of impression management best described as "boundary work" (Luna 2019; Riesch 2010; Tavory 2010), in an attempt to identify with a specific type of Rider, and distance their riderselves from other types of Riders.²⁹³

More specifically, I observed that this boundary work is accomplished as a part of the performance of the bike rider role in two ways:²⁹⁴ (1) PWRB engage in directly observable riding practices typical of the type of Rider they wish to be seen as, and/or (2) by rhetorically "othering" different types of Riders, and offering accounts of their riding practices in a manner that aligns it, and thus their riderselves, with their "idealized" meaning of PWRB (Goffman 1959:35).²⁹⁵ Furthermore, I distinguish different types of PWRB from one another by the sort of boundary work in which they typically engage, as

well as the type(s) of Riders from which they distinguish themselves. In my analysis of Rider-type identities, I took the use of pronouns such as "we" and "them", adjectives connoting positive or negative evaluations of other types of PWRB, comments that frame bicycling as a part of a self-concept (i.e. I'm a bicyclist) vs. what someone does (i.e. I just ride a bike), and other indirect speech acts to be evidence of rhetorical othering.

Recall from theme 5 that Reluctant Riders perform the bike rider role for two audiences: (1) other individuals whom are car-less like themselves, as well as (2) a "generalized other" (Mead 1934) consisting of other roadway users (ORUs), most importantly people who drive cars. This means they perform boundary work on two fronts. First, Reluctant Riders strive to distinguish their riderselves from those who are poorer, more disabled, and more hopelessly carless than they are, or as described by one participant, "those who have hit rock bottom". Reluctant Riders typically create this social distance in practice by possessing and effectively using a bike and accessories as described in themes two and four. Rhetorically, Reluctant Riders' boundary work distinguishes their riderselves from carless peers by at best pitying those without bikes, or worse belittling them for their bikelessness. For example, Austin one participant that I consider to represent Reluctant Riders told me of how happy he was that he had recently come by a bike (given to him by a friend who as leaving town). In doing so, he mentioned several times that he felt like owning a bike was a "real step in the right direction", and that he planned to care for it (he had just purchased a lock) and planned to the bike use it to expand his job opportunities and to get to his appointments on time. More so, he framed having a bike as a point of distinction from others he knew, and whom he believed "couldn't use a bike even if they had one". Pointing to a nearby acquaintance who

appeared to be sleeping, he said, "like that guy over there. He's passed out, piss drunk from drinking all day. Even if he had a bike, it would be gone by now. Either stolen, or he'd sell it for beer money, maybe weed, crank, whatever. Plus, he couldn't ride it anyway, or he'd get himself killed. He can barely walk when he's drunk, much less ride a bike."

As a type, Reluctant Riders also distinguish their current, carless riderselves from their potential, car driving "true selves" (Gecas and Burke 1995; Irvine 2000), who in their mind are represented, and judged, by ORUs, car drivers in particular. Remember from Theme 5 that for Reluctant Riders, performances of the bike rider role are typically difficult and often unsuccessful in that they are unable to maintain face. Instead, Reluctant Riders emerge from interactions with ORUs feeling disrespected and shamed. Thus, as a part of their riderself-othering (Lacan 1988)²⁹⁶ the boundary work of Reluctant Riders typically features riding practices that allow them to avoid the gaze of the generalized ORUs. As described in Theme 5, this means that Reluctant Riders avoid the roads, streets, and even popular pathways where they are likely to encounter unsympathetic, if not hostile, ORUs. Additionally, Reluctant Riders rhetorically emphasize the atypical and temporary nature of their riderselves, and again, underscore their reluctance to ride a bike as an alternative to driving a car. As Austin, a 40-something old male who had recently secured an apartment and part-time job said, "I know I get around on a bike these days, but it won't be forever, at least if I have any say in it. Once I get back on my feet, and get some money saved, I want to buy an old car, maybe a little pickup truck that I can use for work, after I get my license back that is. I can't wait to have a car again and put this whole situation behind me."297

The PWRB that I call Simple Riders are unpretentious and literal in their approach to bicycling. Their riding is organizationally passive, egoistically motivated, and they are either unaware or unconcerned about the cultural, political, and other symbolic meanings of their riding. Despite riding a bike and commonly being considered a Bicyclist by ORUs and bicycling stagers including professional Advocates, Simple Riders typically do not identify as such. To the contrary, they distinguish themselves from those Riders they consider to be Bicyclists, which implicitly includes Rec Riders since they do not distinguish different types of Riders from one another. For Simple Riders, more enthusiastic Riders are all the same, they are "hardcore", "die-hard", or "dedicated" and the purpose for which they ride is irrelevant or has not occurred to them. My research participants that I categorize as Simple Riders regularly distanced themselves from meanings that might be politicized, or frame bicycling as anything more than a fun, healthy, and voluntary activity. As Winnie says, "sure, I like to ride my bike to the park with my granddaughter, but I'm not a tree hugger or trying to ride my bike to work every day regardless of the weather. I'm not that crazy about it."

Simple Riders distinguish themselves from Bicyclists through engaging in the typical riding practices described in previous themes. Most relevant to boundary work, they make it obvious that they are unwilling to sacrifice time or comfort to ride; purchase expensive, specialize bikes or gear; encourage others to ride; participate in organized bicycling events; or otherwise affiliate themselves with bicycling organizations. Simple Riders also limit their performance of the bike rider role to calm neighborhood streets and nonmotorized, multiuse pathways. Rhetorically, Simple Riders make it clear that they "just ride a bike". I would often include an informal version of Kuhn and McPartland's (1954)

"20 statements test" as a part of my interviews. And even though biased by the context of the interview not once did "bicyclist", or a semantic equivalent, appear in the list of "I am" statements of those individuals I consider to be Simple Riders (it did for Rec Riders and Bicyclists however), and is a major consideration in the delineation of the Simple Rider type. Not only do Simple Riders rhetorically qualify their riderselves so as to exclude the Bicyclist identity, they also belittle more enthusiastic riders²⁹⁸ and explicitly reject contentious political and countercultural meanings associated with bicycling.²⁹⁹

For example, Miguel, a forty-something Hispanic male suggested the label "Bicyclist" can be problematic. An excerpt of our discussion goes like this: If I remember, you mentioned before that people, friends, colleagues think you must be a bicyclist. Miguel responds "Yes, but they're wrong. As soon as you put an 'ist' on it, it's just not me. I ride a bike, but I don't ride a bike to make a statement, or save the world, it's pretty selfishly motivated." I probe, Yeah? Is that what you tell people? "No, I mean not exactly. I just tell them that it's fun, plain and simple." Or as Alicia, a thirty-something Hispanic female, explained, "there are some groups of people that bike together trying to open spaces for bikers (...) and people that are related to other causes, like, I don't know, they are environmentalists, I don't know, there are a lot of other movements around this biking thing. And yeah there are like lots of them, they are crazy environmental people (...) so I decided just to ride sometimes and not be involved in the political." And later, when our discussion had come to focus on others in her life that ride she said, "my partner also rides. Yeah, he's a die-hard mountain biker, but not me. That shit freaks me out. He wants me to try again, but no. I'm not OK with that kind of intense riding. Way too much adrenaline for me. I'll stick to the bike paths around town, thank you!" Here we see Simple

Riders distancing their riderselves from both Bicyclists, Advocates and Activist in particular, as well as Rec Riders.

Recall from themes one and two that Rec Riders are PWRB with moderate to high enthusiasm for recreational bicycling pursuits, those that ride for fitness and fun, relaxation and self-realization. Yet, rather than identify with a general "bicyclist" identity, those I consider to be Rec Riders typically identify as enthusiasts of specific recreational bicycling pursuits such as "cyclist", "mountain biker", and "cruiser". This is unsurprising given that each pursuit is supported by a full complement of identity-affirming, sociocultural structures - its own promotors, marketing and media, specialized bikes and riding gear, scenes in which to present a specialized riderself, as well as role models, lore, and lingo including archetypical characters such as cycling "Freds" and mountain biking "poseurs". All of this makes it easy to narrowly identify with a specialized bicycling pursuit, and unnecessary to identify with PWRB more generally. More importantly, as a type, Rec Riders do not identify as Bicyclists, that is, someone who rides voluntarily as an alternative to driving a car. This is unsurprising given that, Rec Riders typically ride in addition to driving a car, and with the exception of cyclists, do not use the roadways or perform for a generalized ORU (see Theme 5).

Rec Riders engage in boundary work when they enthusiastically engage in specialized riding practices, purchase expensive, specialized gear, join teams, compete in competitions, etc. But more than just narrowly identifying with specific bicycling pursuits, Rec Riders typically engage in rhetorically othering Bicyclists and enthusiasts of other recreational bicycling pursuits (even if just as good-natured teasing). For example, when discussing the infamous cyclist – mountain biker rivalry, 300 Ling, a thirty something

Asian female, who is ironically also currently a cyclist, said: "I actually used to be a little bit anti-bicyclist, and even more so toward bikes with curved handlebars." I replied. "So you mean road bikes?" She said, "Yes, basically, I hated road bikers. I started mountain biking in '99 and I was one of those mountain biking snobs. Thought that the only kind of biking was mountain biking and all the other forms of biking was a joke." And when asked about what he thought of mountain bikers, one witty cyclist replied, "[we] Roadies have a derogatory term for mountain bikers. We call them 'mountain bikers'". Finally, when asked why his love of mountain biking did not motivate him to ride for utilitarian purposes, Alex, a forty-something, white male said, "I'm not cool with riding in traffic. It's just not me. More power to those who do it, but I'll stick to the trails." I probe, "can you say more? What about riding in traffic is not you?" "Hmm (he pauses for a few seconds), I'm not entirely sure. It's not like I'm afraid of traffic, I think I can handle myself on a bike just fine. I guess, I just don't see the point. You piss off drivers, and get places all sweaty, or cold. And hell, I like my car. They're just two separate things. I use my car for the usual running around, going to work, to the store, you know, the routine shit. But my bike is just for fun. Nothing better than going to the mountains on the weekends and hitting the single track. I don't try to drive my car on the trail, and I don't ride my bike on the streets."

Again, recall from Chapter 5, Themes 1 and 2 that Bicyclists are PWRB for utilitarian purposes with moderate to high enthusiasm, and as an alternative to driving a car. And as discussed in Theme 5, I regularly observe Bicyclists (all subtypes included) identifying themselves as such by performing the bike rider role in a variety of bicycling scenes such as at public meetings, bicycling celebrations, protests, and at work. I take

these practices to signify a relatively high level of enthusiasm, and affirmative self-concept as a Bicyclist.

Yet also according to my observations and interviews, performing the Bicyclist role includes boundary work that Bicyclists perform to distinguish their riderselves from other subtypes of Bicyclists in a manner that I believe reflect and reproduces the contentious nature of riding as an alternative to driving. Typically, Simple Riders, Rec Riders and Everyday Bicyclists distance themselves from Advocates, Advocates do not want to be seen as Activists, and Activists in turn distance themselves from everyday Bicyclists and Advocates. And like Rec Riders whom narrowly identify as enthusiasts of specialized bicycling pursuits, Bicycle Laborers identify narrowly with their job, or even employer, and work to distinguish their riderselves from all other types of Bicyclists, fellow bicycle Laborers included.

In my interviews with those Riders that I categorize as Everyday Bicyclists, all but two participants explicitly qualified their riderselves as to not include an identity as Advocate or Activist, though most also mentioned that they practice personal advocacy and/or activism. For example, Winona twenty-something white female, said, "so I don't actively advocate for like a bicycle culture or a shift in consciousness or anything like that. But I think I try to model, or at least use my actions to model a different way of life. But I don't know if that impacts anyone, certainly it is more of an individual activism if anything, it's nothing like contributing to national campaigns." Similarly, Tyrone, a forty-something white male, with a long history of riding, put it like this, "Well I'm not an active advocate, other than the interview that I'm providing now and other than like the last almost 30 years teaching people to fix their bikes and stuff like that, but I'm not any organizational leader,

I don't have a blog site, I'm not actively participating in being an advocate." And finally, David, a twenty-something, white male sees it like this, "I don't participate in rides or promotions, or volunteer any time or money because I don't think bicycling is for everyone and they shouldn't be pressured into doing it. I try to be a good example and help out friends if they ask. But otherwise it's none of my business how they get to work."

Finally, along with formal Advocates, Everyday Bicyclists also distinguish their riderselves from activist and Riders that practice personal activism. In my discussion with Tyrone he stated

"asshole cyclists are giving us all a bad name". When ask to clarify, he said "you know, those that protest against cars, or do that critical mass thing. You know, I just don't think that it's okay to attach an angry thing to the cyclist. I mean I really think we're happy, we should be happy people, you know what I mean; our bodies are functioning better, our brains are functioning better you know. We are not trying to ruin the, we're not the big corporate people; we're the people riding bikes. So, this whole like, we're mad at the world because you don't dig us right, you know that's whole, I don't think cyclists should be upset people. If you want to see angry motorists, I don't think we have to help them at all, they are already angry. I don't think we need to add to it and give them a target at which to direct their anger."

Given the unusual and contentious nature of bicycling as an alternative to driving a car, it is understandable that Everyday Bicyclists do not want to be seen as Advocates or Activists. However, the boundary work is not limited to Everyday Bicyclists. One of the more surprising findings of this project is the boundary work performed by professional Advocates in which they downplay their Advocate identity by rhetorically distancing their riderselves from the PWRB that they refer to as "fringe riders", "mass-holes", and "gonzos". All of the professional Advocates to whom I spoke identify with Everyday Bicyclists by acknowledging their privilege, expressing sympathy for the difficulty of riding as an alternative to driving, and/or sharing their own car-free shortcomings. For example, Paul, a sixty-something white male professional Advocate in Boulder stated,

So, for me [as an Advocate] to put [everyday Bicyclists] to shame, for me to play around with shaming them, it's like, think of the environment, think of this, I would only do it in most light handed way possible. And I have to be aware of my own hypocrisy because I'm not a model of someone who, I'm not an activist myself, so you know pot calling the kettle black and all that kind of stuff. (...) My car is out there. I am lazy, I get periods of laziness or maybe I get physically injured and then it is just hard to get back on it. And I have all kinds of excuses just like everybody else.

And, I had a discussion with Remi, a thirty-something white female professional Advocate from Denver, in which I ask, do you consider yourself an advocate or an activist for bicycling? You can apply your own meaning to these terms. She replies, "Huh, that's a really interesting question (laughs). It is a changing role for me. I don't, I'm not comfortable with either title." I probe, what is your job title? And she responds,

Associate City Planner. Yeah, I think I'm sort of in an identity crisis which is why it is hard for me to answer this question. So, if you would ask me two years ago was I a bike advocate, I would say absolutely yes, because I was doing advocacy work. We were pushing policies and programs and, um you know, working with elected officials. But it changed when I moved to Denver for grad school. At first, I still felt like I was an advocate, doing, you know, my own thing, on my own level, just a little more focused in. And now that I am with the City and I'm understanding the system side better, I am not as comfortable as an advocate, and I think that partly has to do with the fact that, [bicycling advocacy] can be very polarizing, particularly from an elective official's perspective. I really feel like I've pulled away from that advocacy role, because I don't see it as effective. You know it is hard to be, to say I'm an advocate, and I work for the City. I just don't think that looks as good or something.

Bicycling Activists in turn perform boundary work that distances their riderselves from Everyday Bicyclists, and Advocates, whom they believe to be insufficiently enthusiastic about riding as an alternative to driving a car, and/or faint-hearted when it comes to the means by which they encourage a diverse range of others to ride more frequently and more safely. As noted, Activists are those people who work outside of institutionalized efforts to encourage riding a bike as an alternative to driving.³⁰¹ Riding practices such as participating in Critical Mass rides and engaging in acts of personal

activism as previously described constitute behavioral boundary work that set bicycling Activists apart from the mainstream. But as noted in Chapter 4, opportunities to participate in DIY-Activist staged events and thus be a bicycling Activist are almost non-existent in Boulder and Denver, leaving practicing acts of personal activism as the only way to realize one's self as an Activist, a situation that is limited in its effect.

Rhetorically, Everyday Bicyclists that engage in personal activism typically have an antagonistic view of ORUs, car drivers in particular. They are quick to criticize drivers and hyperautomobility, which implicitly includes Rec Riders and less enthusiastic, more law-abiding Everyday Bicyclists and Advocates. But more important than the criticism of Everyday Bicyclists' reluctance to participate in activist events such as Critical Mass³⁰². bicycling Activists (those I interviewed as well as cite), say that professional Advocates and mainstream advocacy in general, are colorblind and classist and too focused on the needs of wealthy, mostly white commuters. They further note that low-income riders make up a larger proportion of PWRB, and people of color who ride bikes have far fewer bicycling amenities placed in their neighborhoods, and experience police profiling, and collisions at higher rates. Indeed, this willingness to publicly criticize mainstream Advocacy efforts, and promote bicycling as a tool to address broader social and environmental injustices such as gentrification, inequitable distribution of public resources, and the over-policing of poor and minority communities is a primary distinguishing characteristic of formal Activists.

Like PWRB in general, Bicycle Laborers typically perform boundary work that distinguishes their riderself from other PWRB. The riders I spoke to and categorize as Bicycle Laborers typically identify rather strictly with their job and engage in boundary

work that distinguishes their riderselves from other types of PWRB, including other Bicycle Laborers employed in other positions. Boundary work by Bicycle Laborers is accomplished through practices such as hanging out together while on the job between deliveries, riding bikes and using accessories that are customized and/or specialized, as well as wearing riding gear and apparel such as bags, jackets, and jerseys that displays company logos, etc. (see Theme 4). Another boundary work practice in which I observed Bicycle Laborers engaging is riding in a manner that is stereotypically indicative of their Bicycle Laborer position, such as when bike messengers ride in a reckless, scofflaw manner, or when pedicab peddlers decorate their cabs with lights, play music, and tool around transportation hubs, night life districts and entertainment centers looking for a fare. Moreover, the rhetorical boundary work is clear in the excerpt from a discussion I had with a bike messenger who goes by the name Nico. I ask, do you consider yourself to be a bicyclist? He answers with a scoff, "no way". Really? I replied in surprise. "But you ride just about every day. Can you say more?

That's true" he says while laughing. "I mean, I guess I'm a bicyclist, but not just a bicyclist. It's like this, I've worked on a bike for almost 20 years, delivering packages all over this city in the snow and sun. Fighting it out with cars and angry old bus drivers, dodging ignorant jaywalkers, and tourists. And, way before it was cool. Before the City built all these new bike lanes and shit. I'd bet hella money that I've ridden more miles per year over the past 20 years than any of these dudes that commute in from Stapleton, or these wannabe fixie riders living in those pricy new condos in RiNo. So, no, I'm not just a bicyclist, I'm a fuckin' courier!

Finally, it is worth noting that while a majority of riders' boundary work functioned to achieve social distance from PWRB in ways other than they do, this is not true of all. To the contrary, in our discussion of other PWRB, a few riders such as Tyrone I spoke to explicitly noted the opposite.

I think it's great that they have put in these rental bicycle things, and that people are digging it. You know, we've had the fixie craze, and a bunch of people have

gotten on bikes because of that. And I think that's awesome; I don't care if you're drinking a Pabst and smoking a cigarette at the same time, you're on a bike, man, and that's hot, I love that. You know, I don't know, I think that's really great, and so I guess what I'm saying, like whether it's political or not any sort of cycling is a great thing.

CHAPTER SUMMARY

In this chapter I have continue with the effort to address the question "who is a bicyclist?" by exploring the social psychological and interactional differences between the different types of people who ride bikes. This has included an exploration of the number and variety of scenes in which they perform the bike rider role; the various meanings of bicycling and people who ride bikes and riders' subsequent motivation for riding; as well as how and against who riders engage in boundary work. In Chapter 7, I will conclude by summarily responding to the guiding question "who is a bicyclist?",

CHAPTER 7: CONCLUSION

I started this dissertation with a discussion of the fundamental and ubiquitous nature of our everyday embodied mobility, and the heavy cost to our health, economy, environment, and social fabric exacted by our current dedication to and dependence on cars, a situation known as hyperautomobility. I further argued that bicycling as an alternative to driving a car is an appropriate response to the costs of hyperautomobility, yet one that is remarkably unpopular given its cost-mitigating potential. As a heuristic technique intended to frame the issue, I pose what I call the "advocate's question": why don't people ride bikes more, and drive cars less? In response, I offer what I believe is a uniquely qualitative/interpretive, sociological response: bicycling as an alternative to driving a car is deviant, and thus results in several social psychological and interactional challenges that must be avoided, overcome, and managed if one is to successfully ride a bike as an alternative to driving a car. Yet according to rates of riding, few people are up for the challenges, limiting the number of people who ride bikes as an alternative to driving a car and fueling the vicious cycle of car dedication and dependency.

In an inductive effort to investigate the social psychological and interactional aspects of bicycling and people who ride bikes, I again ask a pair of essential, research questions: "what is a bike rider?" and, "who is a bicyclist?" As detailed in the preceding chapters, the answer to both questions is far more complex than the common understanding of bicycling and people who ride bikes would suggest. In the next several paragraphs, I will summatively respond to these questions in an effort to "connect the dots" across the last three chapters.

WHAT IS A BIKE RIDER?

On the surface, this is a simple question with an equally simple answer – a bike rider is a person riding a bike. Yet, when viewed through the lens of mobilities theory and qualitative/interpretive sociology, our everyday embodied mobilities are "made strange" (Sternheimer 2009) and another answer comes to light. As I have detailed in this dissertation, there is much more to the reality of a bike rider than a person on a bike. While Occam's razor warns against unnecessary complexity, and is an idea with which I generally agree, the intricateness of the response provided here is warranted given the scant use of bicycles as a means of everyday embodied mobility. Clearly, something is missing. To successfully address the advocate's question, bicycling scholars, planners, and advocates must have an understanding that is theoretically sophisticated enough to address the practical, logistical, and physical barriers to riding a bike, as well as the social psychological and interactional dimensions/challenges of being a bicyclist.

Thus, following in the tradition of mobilities theorists (as discussed in Chapter 3), I posit that a bike rider is not simply a person riding a bike, but rather an ephemeral, emergent phenomenon, an *assemblage* of person, place, and practice that, while readily understood in the abstract, can only be observed empirically *in situ* (Jensen 2013). Just like a different person riding in the same place and similar manner is not the same bike rider, the same person riding in a different place, in a different manner, or for another purpose is not the same assemblage. Systematizing and summarizing something as ephemeral as the bike rider assemblage is not easy. As a means of striving to capture an inherently fleeting reality, I adapted Jensen's (2013) "staging mobilities" framework to structure my observations, analysis, and response to my research questions. In Chapter

4, I "set the stage" for a dramaturgical understanding of the performances of the bike rider role in Boulder and Denver. Jensen reminds us that everyday embodied mobilities, bicycling included, are institutionally planned and funded, designed and engineered, maintained and managed, regulated and policed by authorities, as well as, depicted in and facilitated by the news, entertainment, and social media, plus governed by informal social norms — that is, "staged from above". Thus, in Chapter 4 I explored the built-environmental and social structural aspects of bicycling in Boulder and Denver, presenting my findings in terms of four types of bicycling "stagers" and their staging activities. As noted, Boulder and Denver are unique bicycling stages, well endowed with extensive, high-quality facilities, settings, scenes, and props, as well as a robust community of fellow performers of the bike rider role.

Who is a Bicyclist?

Bicycling is also "staged from below" – performed and made meaningful through social interaction as people improvise their presentations of self, given the affordances of their built environment and sociocultural milieu. Accordingly, in Chapters 5 and 6 I shared the results of my effort to operationalize the "staging from below" aspects of the bike-rider assemblage and present the answers to my question "who is a bicyclist?" in the form of a typology of ideal-type Riders (see Table 8). I approached my second research question of "who is a bicyclist?" with my conception of the bike rider assemblage in mind, and used it to structure my observations and analysis, resulting in seven themes, each a partial answer to the question. In Chapter 5, I discussed the first four of the seven themes that focus on the bicycling *practices* of people who ride bikes, behaviors such as when, where, with whom, and for what purpose(s) one rides, as well as how frequently, how fast, the

route taken, the "rules of the road" adhered to (or not), and the technologies used, including type of bike, safety equipment, apparel, and other gear. Then, in Chapter 6 I continued to refine my typology of Riders by exploring the social psychological and interactional aspects of Riders' embodied *performances*, including the number and variety of scenes in which people who ride bikes perform the bike rider role; the meaning of bicycling and people who ride bikes, and Riders' subsequent motivation for riding; as well as the boundary work that people who ride bikes engage in to manage the impression of their "riderself". Though each chapter highlighted a different aspect of the bike rider assemblage, in reality person, place, and practice are co-emergent elements that are both the cause and consequence of the other features of the assemblage.

So then, who is a Bicyclist? And why do we care? As detailed in the preceding two chapters, there is much more to being a Bicyclist than simply riding a bike. Rather, being a Bicyclist is a social accomplishment and requires a specific combination of bike riding practices and performances. Along with overcoming formidable practical, logistical, and physical challenges, to be a successful Bicyclist, one must perform the bike rider role in a particular place, manner, and mindset, a challenge that many PWRB are not willing or able to accomplish.

Yet it is bicyclists that are of special interest to this project because it is their riding practices and performances of the bike rider role, the challenges and difficulties faced and the ways in which they are avoided, managed, and overcome that are the answer to the Advocate's Question. Insomuch as most people who drive cars do not ride as an alternative to driving, but Bicyclists drive as alternative to riding, drivers simply do not have the experiences and perspective necessary to respond to the Advocate's Question.

Similarly, because they do not ride as an alternative to driving a car, Simple and Rec Riders also lack the insight necessary to respond to the Advocate's Question. In the following paragraphs, I summarize the characteristics of Bicyclists and the ways in which they address the Advocate's Question.

First and most importantly, a Bicyclist is a person who rides a bike with moderate to high enthusiasm (Theme 1) and as an alternative to driving a car (Theme 2). Bicyclists have riding goals and are willing to spend time and money to achieve them, they sacrifice comfort, endure difficulties, and endeavor to see more people ride more frequently and safely. Reluctant, Simple, and Rec Riders either lack enthusiasm and/or ride in addition to driving a car. While Bicyclists can be differentiated from other types of Riders in additional ways, these two aspects of their riding practice are their essential distinguishing feature and make them of most interest to planners and advocates seeking to reduce the costs of hyperautomobility. Bicyclists use the roadway and are "all up in the middle of the street" (Hoffmann 2013), practicing a "de facto" form of vehicular cycling. Most other types of riders simply avoid roadways (cyclists being a notable exception). This makes Bicyclists, particularly those who take some liberties with the rules of the road such as bike messengers, very visible to ORUs and disproportionately influence the public perception image of all riders. Bicyclists ride moderately to high priced bikes and use specialized gear that allows them to ride safely, efficiently, and comfortably in less than ideal conditions such as extreme heat and cold, wet weather, and after dark. Other riders either don't use specialized gear, or it is specialized to enhance their performance in competitive pursuits. Bicyclists perform the bike rider role in the greatest number and variety of scenes, as indicated by my research, all of them. Unlike Reluctant and Simple Riders, Bicyclists present their riderself in off-bike performances when they interact with others as a bike rider in a public meeting, at the coffee shop, or when purchasing new gear. Being a Bicyclist requires a degree of intentionality and reflexiveness that is most clearly revealed in off-bike performances of the bike rider role. Bicyclists express the greatest number and variety of meanings of bicycling and people who ride bikes. Unlike other people who ride bikes because of what they do for them, Bicyclists are motivated to ride out of concern for others as well. Not only is bicycling fun, healthy, economical, and efficient, it is also green and just. Unsurprisingly, multiple motivations are associated with higher levels of enthusiasm. Finally, despite many similarities, Bicyclists are not a homogenous group. Important differences in idealized riderself-concepts reveal subtypes of Bicyclists. The boundary work of Bicyclists can be described in this way: Everyday Bicyclists distance their riderselves from Advocates. Advocates distance their riderselves from Activists and identify with Everyday Bicyclists. Bicycle Laborers distinguish their riderselves from Everyday Bicyclists, and Bicycling Laborers working other jobs.

Table 8: Types of People Who Ride Bikes						
	Riders			Bicyclists		
Themes	Reluctant	Simple	Rec	Everyday	Advocates & Activists	Laborers
Enthusiasm	No to Low	Low to moderate	Moderate to high	Moderate to high	Moderate to high	Moderate to high
Purpose of riding	Utilitarian Alternative to driving	Recreational In addition to driving	Recreational In addition to driving	Utilitarian Alternative to driving	Utilitarian Alternative to driving	Utilitarian Alternative to driving
Negotiating the rules of the road	Avoid the road	Avoid the road	Avoid the road (except for cyclists)	Practice de facto vehicular cycling	Advocates strictly adhere on the job Activist blatantly violate	Practice de facto vehicular cycling
Bikes and gear	Refurbished and no to low cost	Inexpensive and all- purpose	Expensive and specialized	Expensive and specialized	Expensive and specialized	Inexpensive and customized
Scenes in which Rider plays the bike rider role	Everyday bicycling: Calm MUPs	Everyday bicycling: Streets, sidewalks, calm MUPs	Trails, parks, velodromes, rural roads (cyclists)	All scenes, except for on the job	All scenes	On the job
Meanings and *motivation	Economical and efficient * Coerced * "easier than walking, cheaper than the bus"	Fun and healthy * Egoistic	Fun and healthy * Egoistic	Fun and healthy, economical and efficient, green * Egoistic and altruistic	Fun and healthy, economical and efficient, green and just * Egoistic and altruistic	Fun, economical and efficient * Egoistic
Boundary work Who I am NOT	Rock bottom True self	Bicyclist, especially Advocate	Other Rec Riders, nor Bicyclist	Advocates	Activists	Other Bicycle Laborers nor Bicyclists

Table 8 provides a graphic summary of the different types of people who ride bikes.

THEORETICAL CONTRIBUTIONS

I will begin this section on a personal note and say that I hope qualitative/interpretivist sociologists, mobilities theorists, bicycling scholars, and people who ride bikes will find this dissertation to be interesting, if not theoretically progressive, and/or practically useful. It has been my privilege to produce it, and hope this sentiment is conveyed to my readers.

More importantly, if the "regime of automobility" (Bohm et al. 2006) is to be challenged and a safe, sustainable, just mode of embodied mobility, such as bicycling, is to be imagined, promoted, and convincingly argued for, not just in academic journals but in the public domain (Furness 2007), it seems clear that we need to understand the processes by which hyperautomobility is maintained and expanded, and bicycling as an alternative is subverted. That is, we must answer the Advocate's Question. While not initiated with bicycling advocacy as a specific goal (recall my Chapter 2 discussion on positionality), this dissertation nonetheless responds to the Advocate's Question. In it I offer a theoretically sophisticated framework of bicycling that makes room for both structure and agency, the material and ideal, as well as a thick, rich empirical description of the bike rider assemblage, most importantly the people who ride bikes as alternatives to driving, those I call Bicyclists. More specifically, this dissertation makes (at least) three contributions to mobilities theory and sociology in general that can be applied to advocacy efforts: (1) its "neo-Goffmanian" conceptual framework; (2) my conceptualization of bicycling "stagers", their "staging" activities, and the resultant bicycling "scenes"; and, (3) the typology of people who ride bikes, with its detailed response(s) to the question "who is a bicyclist?" that helps us understand why we should care.

The first theoretical contribution of my dissertation is its "neo-Goffmanian" conceptual framework for understanding everyday embodied mobilities, bicycling in particular. Mobilities scholars such as Randell (2017), Sheller (2014), Sheller and Urry (2006), Urry (2000), and others have long-posited mobilities theory as a social scientific approach capable of spanning the "great [materialist/realist - idealist/constructionist] divide" (Bell 2004; Carolan 2005; Goldman and Schurman 2000). However, such divide spanning is not guaranteed and mobilities research frequently accentuates the material/realist elements at the expense of the idealist/constructionist aspects. I agree with Randell (2017) who asserts that "routine, typically unremarkable, and unnoticed daily practices, (...) are inadequately glossed under in Urry's description of automobility as a 'self-organizing autopoietic ... system' that is 'locked in' to social life'" (Urry 2004:27, guoted Randell 2017:673). Similarly, I concur with Mimi Sheller when she argues, "the visceral and other feelings associated with car [and bike] use ... are as central to understanding the stubborn persistence of car-based cultures as are more technical and socio-economic factors" (Sheller 2004:223).

Fortunately, the "neo-Goffmanian" framework presented here, with its tripartite scheme of Person Place and Practice, readily accommodates the built, biological, and social-structural elements of our everyday embodied mobilities (what Jensen 2013 refers to as "staging from above"), as well as the performative, interactional, affective, and experiential aspects of such, bicycling included ("staging from below"). As discussed in Chapter 3, assemblage theory and dramaturgy complement one another by ameliorating each other's weaknesses. In appropriating Goffman's ideas for the study of contemporary embodied mobilities (e.g. Conley 2012; Jensen 2013; Randell 2017), mobility theorists

extend and contemporize Goffman's dramaturgical metaphor, making it a more ontologically sophisticated conceptualization of the reality constructed in everyday embodied mobilities. Likewise, Goffman's meticulous attention to the social psychological and interactional realm infuses agency into and animates the structure-heavy assemblages common in mobilities theory (Dant 2004; Jensen 2006:153-54; Richardson and Jensen 2003:15). More so, I find that Goffman's dramaturgical metaphor complements assemblage theory in that it is a much-needed heuristic device. The overall imagery and language of Goffman's metaphor is intuitive, familiar, and readily appreciated, especially vis-à-vis the abstract and esoteric character of the post-positivist ontologies informing assemblage theory.

Second, I suggest that my conceptualization of bicycling "stagers", their "staging" activities, and the resultant bicycling "scenes", provides the theoretical underpinnings of a new, more interactionist approach to bicycle scholarship, planning, and advocacy.. Rather than a positivist search for predictors, causes, and barriers to bicycling *behavior*, the notions of stagers and scenes focuses our attention on sites of *interaction* and the *social construction* of Bicyclists that occur therein. Scholars, planners, advocates, and other bicycling stagers can use the notions of bicycling stagers and scenes to "think across" current mode-centric, systems-oriented approaches and break out of the much disparaged planning/advocacy "silos".

Furthermore, a "stagers and scenes" approach facilitates the investigation of the dynamics of power and privilege and their effect on the riding practices, performances of the bike rider role, and the experiences of PWRB especially as they pertain to race and ethnicity, immigration status, social class, sex, gender, and age. Similar to the

"communities" and "neighborhoods" in Melody Hoffmann's (2016) "bike lanes are white lanes" study, scenes are intuitive delimiters that tie interaction within and between groups of riders and other roadway users to a specific place and time and make the interaction observable *in situ*. While I have discussed the role of social class, gender, and age in the delineation of the different types of Bicyclists from one another, there is so much more say. I intend to address these issues in future research and writing efforts. I will discuss the details of such in the next section.

Lastly, my typology of people who ride bikes (and implicitly those who do not) contributes to the collection of extant bicyclist typologies in two ways. First, unlike most of the typologies reviewed in Chapter 5, my typology of Riders resulted from an inductive analysis rather than a factor analysis. Rather than relying solely on quantifiable measures to deductively identify latent factors or clusters, my inductive analysis generated ideal types of people who ride bikes that may, or may not, exist at any given time and place. It is less about convergently counting specific people who ride, and more about divergently imagining hypothetical (ideal) types of riders which planners and advocates should anticipate and accommodate even if not statistically represented by a quantitative sample. Second, my typology avoids essentializing real riders, and acknowledges those who say, "I'm not a bicyclist, I just ride a bike!" Since anyone can be any type of Rider in a given moment depending on the person, place, and practice, the typology helps stagers be more inclusive and accommodating of all types of riders. More so, as a typology of ideal type Riders (assemblages), it is not one into which specific people who ride bikes can be definitively sorted, at least not for any longer than that their assemblage persists. For example, Dill and McNeil (2013, 2016) use Geller's (2006) typology of riders to quantify

proportions that are "strong and fearless", "enthused and confident", "interested but concerned", and "no way, no how". However, according to my research, few people invariably ride in the specific manner each category describes. Rather their riding practice varies by place, purpose, time, and even mood. This is why I have made no effort to use my typology of Riders to quantify PWRB in Boulder and Denver, or even my research participants. Instead of asking how many "strong and fearless" riders live in a community, using my typology as a guide, bicycling staging efforts could be critiqued according to questions such as, what types of Riders are we serving? What types are we not serving? And, are the unique needs of each type of Rider being met?

LIMITATIONS AND NEXT STEPS

When I was first considering bicycling and people who ride bikes as a thesis topic (a "2nd choice" of sorts), I was very concerned that there just was not enough "reality" to satisfy the requirements of a dissertation. But I could not have been more wrong. This relatively long, yet paradoxically terse, dissertation just scratches the surface of the topic and does not even exhaust the data I have collected and analyzed. There is so much more sociological research on bicycling and people who ride bikes, much less our everyday embodied mobilities, to be conducted. Along with the methodological limitations already discussed in Chapter 2, there are three other limitations to my dissertation worth mentioning because they represent the basis of future opportunities, a list of "next steps" that include: (1) the development of an assessment toolkit; (2) a journal article or book chapter; and (3) a full-length book. I will discuss each project in the reverse order of how I plan to complete them.

As mentioned, many of the ideas presented here are too abstract and esoteric for interests and I am concerned that few people bevond popular qualitative/interpretivist sociologists, mobilities theorists, and bicycling scholars will appreciate this dissertation. Thus, an important next step is to make these ideas more applicable to the interests and concerns of transportation officials, planners, engineers, professional advocates, and people who ride bikes in general. More specifically, I would like to reformulate the "stagers" and "scenes" ideas as an assessment "toolkit". The toolkit would feature an inventory of potential stagers and scenes and allow planners, advocates, and other bicycling stagers to take stock of their communities' resources. The toolkit would allow them to identify and avoid redundancies, address gaps in services, as well as recognize and leverage the potential contributions of all types of stagers (DIYactivists in particular). In the reformulation, I plan to include a "sixth E", equity. Along with mainstream planning and advocacy efforts discussed in this dissertation (see Chapter 3 discussion of the "five E's"), the proposed toolkit will also facilitate the assessment of a community's commitment to meeting the mobility needs of all roadway users, most relevantly people who ride bikes. The toolkit could be developed and marketed as a selfadministered assessment, or it could be designed for trained consultants, potentially even me.

My second ensuing project is to reorganize the information presented in my typology of people who ride bikes using the idea of bicycling scenes as the primary organizing concept. While the themes used in Chapters 5 and 6 to organize the typology are sufficiently effective in distinguishing types of Riders from one another, in retrospect, I believe the idea of different bicycling scenes (Theme 5) is a better approach to the topic.

Not only does the concept of bicycling scenes easily accommodate my research findings – differences in riders' enthusiasm, and their purposes for riding, the strategies used for negotiating the rules of the road, the bikes and gear riders use, their meaning and motivation for riding, and the boundary work they perform (including playing the bike rider role in particular scenes) could all be discussed by the scene in which it is observed – the concept of bicycling scenes, and the sorts of riders that perform in them, is a familiar image to more people, and would facilitate a discussion that more people could easily join in.

In addition, since scenes are sites of interaction, opportunities to perform the bike rider role, where intersections of race, class, gender, age and more play out, using scenes as an organizing idea would facilitate a robust situational, group-based (Wiess 2010), less individualistic, theoretical discussion of being, *and becoming*, a Bicyclist. While the presented typology effectively describes different types of people who ride bikes, by focusing on scenes I could explore the idea of "becoming a bicyclist" in more depth. While I briefly mentioned that participation in "fun rides", attending public meetings, shopping for specialized bikes and gear, etc. are scenes (processes) by which Simple Riders become Bicyclists, and Bicyclists become Advocates, there is much more to be said. I believe the most appropriate format for such an exposition would be a book written for an interested yet non-scholarly audience. Because such would be marketed to a niche crowd, I have identified a tentative publisher, Microcosm, who specializes in sub- and counter-cultural topics (bicycling included), and has published authors and editors with whom I share academic interests and professional relationships.

Finally, as noted in Chapters 1 and 3, nascent notions of "bicycling as deviance" (aka "biking bad"), "bicycling stigma" (and its management), as well as those ostensibly "rude, reckless, and scofflaw riders" are *the* seminal ideas for this dissertation. Unfortunately, the analysis presented here does not do the concepts justice. Initially, I had planned to have these topics serve as the basis for a chapter or two in this dissertation. But as my reiterative data analysis and writing process proceeded it became clear that the topic should be addressed in dedicated book chapter or journal article, if not two. It has always been my intention to address the multiple manifestations of power and privilege that characterize bicycling and bicycling staging efforts. As it is with just about every American institution, our everyday embodied mobilities are rife with prejudice, discrimination, power, and privilege. These inequities are seen in differences in the rates of and motivations for riding between races, classes, and sexes. However, that is now a topic for my next writing effort. The chapter/paper is more than half-written, and I plan to tailor it for the requirements of the venue through which it is published.

SALUTATION

This dissertation does not signify the end of my research on embodied mobilities, bicycling, and people who ride bikes. Rather, it is merely a starting point, a foundational document in which numerous studies not yet imagined will be rooted. I look forward to "drilling down" on a few of my efforts here, as well as "blowing up" others with new research questions, field sites, and participants in the coming months and years.

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APPENDIX

Research participants (pseudonyms) quoted and basic sociodemographic information

Alex: Late 40s, male, white **Molly:** Late 40s, female, white (Australian)

Alicia: Early 30s, female, Hispanic

Nico: Mid 40s, male, non-white (exact race undermined)

Angelina: Late 20s, female, white Noah: Mid 30s, male, white

Austin: Early 40s, male, white **Paul:** Early 60s, male, white

Clara: Mid 20s, female, white Peter: Late 40s, male, white (Australian)

David: Late 20s, male, white **Remi:** Early 30s, female, white

Emily: Mid 20s, female, white **Rita:** Late 20s, female, Hispanic and Asian

Jade: Late 20s, female, white, **Ronnie:** Mid 50s, male, white

John: Early 60s, male, white **Sasha:** Mid 30s, male, white (Russian)

Kent: Early 40's, male, white **Shawn:** Early 40s, male, Black

Ling: Mid 30s, female, Asian **Ticketed rider:** Mid 50s, male, white

Mac: Late 40s, male, white **Tyrone:** Early 40s, male, white

Makala: Early 30s, female, white Winnie: Early 40s, female, white

Miguel: Late 40s, male, Hispanic Wynona: Late 20s, female, white

ENDNOTES

- a) "the quintessential manufactured object produced by the leading industrial sectors" in twentieth century capitalism;
- b) "the major item of individual consumption after housing which provides status to its owner through its sign-values" such as speed, security, sexual desire, freedom and family;
- c) "an extraordinarily powerful complex constituted through social and technological linkages with" industry, gas production, road-building, car repairs, suburban housing, law-making, advertising and urban design and planning;
- d) "the predominant global form of 'quasi-private' mobility that subordinates other forms of mobility";
- e) "the dominant culture of what constitutes the good life"; and
- f) "the single most important cause of resource-use" (2004:26). This description highlights that it is not the car itself that is central but rather the system of fluid interactions that sustain it.

As Slater states: "a car is not a car because of its physicality but because systems of provision and categories of things are 'materialized' in a stable form" (quoted in Urry 2004:26). Bohm et. Al (2006:6) build on Urry's definition of the systemic aspects of automobility by highlighting the importance of "the relations of power that make the system possible". The term automobility, as used throughout this dissertation to refer to the broader definition of the systemic structures and practices that enable and incentivize automobile use, as well as discourage other modes such as bicycling.

³ A full explanation of the measures used to assess hyperautomobility is beyond the scope of this project. Newman & Kenworthy (2015) suggest that people, places, and trips of particular purpose(s) can be understood as "car-dependent" (or car-free, car-lite, car-less). And though car dependence can be operationalized and measured in various ways, rarely (if ever) is it a dichotomous measure of 'yes' or 'no'. Levels of automobility in large cities of the world (data from ACS 2011; LTA 2011)

- Hyperautomobility: More than three-quarters of journeys made by auto: Examples: Dallas (89%), Houston (88%), Los Angeles (78%)
- High automobility: Between one-half and three-quarters of journeys made by auto: Sydney (69%), Toronto (67%), Rome (59%)
- Moderate automobility: Between one-quarter and one-half of journeys made by auto: London (40%), New York (33%), Seoul (26%)
- Low automobility: Less than one-quarter of journeys made by auto: Delhi (19%), Tokyo (12%), Hong Kong (1 1%).

Much has been written on hyperautomobility and car dependency

- Handy, Susan. 1993. "A Cycle of Dependence: Automobiles, Accessibility and the Evolution of Transportation in Retail Hierarchies." The Berkeley Planning Journal 9:21-43.
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¹ Unless otherwise specified, I use the term "car" to describe a variety of motorized passenger vehicles that are driven on roadways including trucks, SUVs, vans, motorcycles and more.

² John Urry (2004: 26) provides a useful overview of this system. Automobility is:

- ⁴ And for additional sources of transportation data see ...
 - http://nhts.ornl.gov/introduction.shtml#dataCollected
 - http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/transportation_statistics_annual_report/2012/chapter2.html
 - http://www.prb.org/Publications/Articles/2014/us-commuting.aspx
 - http://project.wnyc.org/commute-times-us/embed.html#5.00/42.000/-89.500 ... a very interesting interactive overview of commute times
 - And a couple recent, local reports: https://www.cpr.org/news/story/survey-denver-commutes-have-gotten-worse (Oct'18), https://www.cpr.org/news/story/survey-denver-commutes-have-gotten-worse (Programment of the programment of the program
- ⁵ Housing is considered "affordable" when it costs a household 30% or less of its income. Housing plus transportation (H+T) is "affordable" when it cost 45% or less of a household's income. For additional sources of household expenditures data see …
 - http://www.census.gov/acs/www/
 - http://www.census.gov/compendia/statab/2012/tables/12s0684.pdf
 - http://htaindex.cnt.org/
- ⁶ For additional, statistics on costs of congestion see ...
 - http://www.bizjournals.com/denver/stories/2009/07/06/daily45.html
 - <a href="http://www.developmentresearch.net/Sample%20Projects/Economic%20and%20Fiscal%20Impact%20Analysis/I70%20Analysis/I70%20Ana
- ⁷ For additional technical information on pollution related to petroleum products see ...
 - www3.epa.gov/climatechange/ghgemissions/usinventoryreport.html
 - http://www3.epa.gov/climatechange/ghgemissions/usinventoryreport.html
 - http://www.tandfonline.com/doi/abs/10.1080/00028895809343596
 - http://www.epa.gov/air/tribal/pdfs/presentationpetroleumrefineries14Dec11.pdf
- ⁸ One quart of motor oil can pollute 250,000 gallons of water, and one gallon of gasoline can pollute 750,000 gallons of water! Oil that leaks from our cars onto roads and driveways is washed into storm drains, and then usually flows directly into a lake or stream. Used motor oil is the largest single source of oil pollution in lakes, streams, and rivers. Americans spill 180 million gallons of used oil each year into the nation's waters. This is 16 times the amount spilled by the Exxon Valdez in Alaska!
 - http://www.mass.gov/eea/agencies/massdep/water/watersheds/nonpoint-source-pollution-education-motor-oil.html
- ⁹ For interesting overview of the "road kill" situation, see Knutson 2006 Flattened Fauna: A Field Guide to Common Animals of Roads, Streets, and Highways.
- ¹⁰ Despite the large number of commuting trips made on a daily basis, personal travel not related to work accounts for about 74.8% of total daily person-miles of travel. As to travel purpose, people on average devoted about 30.3% of their person-miles of travel for social purposes and recreation in 2009. Another 29.6% of person-miles of travel were divided about equally between shopping and running family or personal errands (e.g., taking a child or elderly parent to a doctor's appointment). Travel related to school and church accounted for 6.2% of person-miles of travel.
- ¹¹ By shifting traffic from cars to bikes and making it easier to reach transit stops, Austin's planned protected bike lane network is projected to increase the city's traffic capacity by about 25,000 trips per day at about the same cost ratio as a single expressway widening. *Wilkes, Nathan.* "City of Austin 2014 Bike Plan Update." Slide 47.
- ¹² Examples of economic benefits to business include ...

- A survey of San Francisco's Valencia Street after installation of protected lanes found that 65% of participating merchants believed the lanes had a positive impact on business. Clifton, K., et al., 2012 - Consumer Behavior and Travel Mode Choices
- A redesign of NYC's Union Square to include a protected bike lane resulted in 49% fewer commercial vacancies. Momentum Magazine
- Customers who arrive at retail stores by bike spend the same amount per month as comparable people who arrive by car they tend to make smaller purchases but return more frequently. Studies in Toronto; New Zealand; Wales; Davis, California; and Portland, Oregon, all found this to be the case. Clifton, K., et al., 2012 "Consumer Behavior and Travel Mode Choices"
- Rents along New York City's Times Square pedestrian and bicycle paths increased 71 percent in 2010, the greatest rise in the city and a sign that there is high demand and low supply for humanfriendly streets. - New York City Department of Transportation, 2011
- Protected bike lanes can be part of street redesigns that greatly boost retail performance. After the
 construction of a protected bike lane on 9th Avenue, local businesses saw a 49 percent increase
 in retail sales. On other streets in the borough, the average was only 3 percent. NYC DOT, 2012 Measuring the Street
- After New York City installed a protected bike lane on Columbus Avenue, bicycling increased 56
 percent on weekdays, crashes decreased 34 percent, speeding decreased, sidewalk riding
 decreased, traffic flow remained similar, and commercial loading hours/space increased 475
 percent. New York City Department of Transportation, 2011 Columbus Avenue parking-protected
 bicycle path preliminary assessment
- ¹³ For more information, see http://www.streetfilms.org/mba-bicycling/. Similarly: It is purported that one mile of roadway planned through Golden Gate Park is 1,283 times more expensive to San Franciscans than one mile of protected bike lane. San Francisco Bicycle Coalition No.protected bike lanes are probably not too expensive for your city to build.
- ¹⁴ Commuting by bike even for just all those short trips around town is often not much longer, time wise, as sliding into the bucket seat and firing up the car, and it helps peel off pounds. One study found that the average bicycle commuter loses 13 pounds in the first year without overhauling their diet or doing other exercise. http://www.outsideonline.com/fitness/biking/How-to-Lose-Weight-While-Cycling.html
- ¹⁵ Riding a bike for one hour extends the average rider's life by the same amount of time, according to a study in the Netherlands, which also found that they live six months longer than people who do not ride bikes. Each year about 6.5 thousand deaths are prevented in the country. These are the findings of the Healthy Urban Living research program undertaken at the University of Utrecht, published in the American Journal of Public Health
 - http://road.cc/content/news/154903-riding-bike-hour-extends-cyclists-life-same-time-say-dutch-researchers
 - http://ajph.aphapublications.org/action/showCitFormats?doi=10.2105%2FAJPH.2015.302724
 - And a famous Danish study charted the fortunes of 30,000 people over 15 years and found that
 even when other factors were accounted for, those who cycled to work were 40% less likely to die.
 http://cpr.sagepub.com/content/19/1/73
- 16 As in "appropriate technology" www.en.wikipedia.org/wiki/Appropriate_technology
 - Lowe 1989 The Bicycle: Vehicle for a Small Planet
 - Roberts 1995 Blazing Saddles Bikes as Appropriate Technology

¹⁷ By making biking comfortable, safe and dignified has made car ownership optional for low-income Denmark residents. Only 41 percent of trips by Denmark's poorest residents happen in cars, compared to 72 percent by the poorest Americans. For more see <u>How protected bike lanes helped Denmark win its war on inequality</u> (Anderson 2014)

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¹⁸ Here, Illich is paraphrasing Jose Antonio Viera-Gallo, the longtime Chilean government official who (in)famously stated that socialism would arrive by bicycle: "El socialismo puede llegar solo en bicicleta" (p.24).

- ¹⁹ To be clear, I use the term deviance in the strictest sociological sense. I do not intend to suggest, imply or connote criminality, moral depravity, or other negative meaning by using the term.
- ²⁰ For overview of statistics on distance by frequency see http://www.advocacyadvance.org/docs/nhts09.pdf
- ²¹ Modes Less Traveled-Bicycling and Walking to Work in the United States: 2008–2012. *American Community Survey Reports* by Brian McKenzie (May 2014) http://www.census.gov/prod/2014pubs/acs-25.pdf. Additional findings include:
 - Men were more likely to bike to work than women were. The rate of bicycle commuting for men
 was more than double that of women, 0.8 percent compared with 0.3 percent.
 - Those with a graduate or professional degree or higher and those with less than a high school degree had the highest rates of biking to work, at 0.9 and 0.7 percent, respectively
 - 1.5 percent of those with an income of \$10,000 or less commuted to work by bicycle, the highest rate of bicycle commuting by any income category.
 - African-Americans had the lowest rate of biking to work at 0.3 percent, compared with some other race or two or more races who had the highest rate at 0.8 percent.
- ²² In 2015 an estimated 21% of Denver metro areas commuted to work by bike, with 58% of those reporting that Bike to Work Day is the only day they ride to work https://drcog.org/sites/drcog/files/resources/Corona%20Insights%20BTWD%20Survey%20Report%20for%20DRCOG%202015%2011%2010.pdf
- ²³ This sentiment was reiterated by "bike expert" Stephen Clark of the League of American Bicyclists (LAB) at an event (June 30, 2014) to celebrate Boulder's bicycling success at earning the LAB's "platinum" level designation, and to announce the intention to be the first community to achieve the LAB's new "diamond" level designation, an achievement that as of April 2019 has not been realized (by any community). Other Front Range LAB bicycling-friendly communities include Fort Collins (also platinum level), Denver (silver level) and Colorado Springs (silver level)
- ²⁴ For brief overview of the study see http://blogs.lse.ac.uk/usappblog/2015/06/19/how-cities-are-reducing-auto-dependence-by-investing-in-sustainable-transportation-infrastructure/
- ²⁵ For brief overview of report see http://everybodywalk.org/read/1607-bicycling-and-walking-in-the-united-states-2014-benchmarking-report.html
- ²⁶ For example, p.3 section 109, paragraph 11. The "rules of the road" in Colorado can be found:
 - https://www.codot.gov/library/traffic/traffic-manuals-guidelines/fed-state-co-traffic-manuals/model-traffic-code
 - https://www.codot.gov/programs/bikeped/information-for-bicyclists/bike-ped-manual
 - http://codes.findlaw.com/co/title-42-vehicles-and-traffic/co-rev-st-sect-42-4-1412.html ... Talks about "normal" speed, traffic, etc. permits "claiming the lane"
- ²⁷ In contrast to both "normal" and "normed", "normative" refers to a morally-endorsed ideal. For example, a nuclear family with a married man and woman and their biological children is normative in the U.S., but it is not the statistical norm.
- ²⁸ For example, when was the last time you received directions to a location by bike? In 2014 directions to the temporary CU-Boulder sociology grad student offices were given for cars and buses, but not by bike. Ironically, the trip by bike, most likely following the Boulder Creek Path, is actually quite pleasant, safe, and in most cases, much faster than driving or taking the bus.

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²⁹ A successful bicycling performance is one in which "face" is maintained (Goffman 1967)

³⁰ Grounded theory emerged from research conducted by Anselm Strauss and Barney Glaser in the late 1960s. Glaser and Strauss wanted to codify qualitative methods and set out to specify explicit strategies for conducting this type of research and demystifying the qualitative research process. This approach offers systematic and flexible guidelines for collecting and analyzing qualitative data in order to construct theories "grounded" in the data. Kathy Charmaz (2006) updated and expanded Glaser & Strauss' guidelines in her book, *Constructing Grounded Theory*. I will draw heavily from her approach as I consider it a more streamlined re-introduction of the process. According to Charmaz, there are guidelines for collecting and analyzing qualitative data in order to construct theories. Most importantly, there are a series of steps that guarantee verifiable and legitimate results: a) gathering "rich data", b) taking thorough field notes, c) coding data, d) memo writing, e) constructing theory, and f) writing the draft.

³¹ I could go on here (as a few interview participants have) about the freedom and autonomous embodied mobility that bikes provided to my friends and me. Before being able to drive, bikes extend our "free range" (Hart 1979) considerably, opening up the entire community, and freeing us from our parents' cars.

³² Of course, the question is why? But since getting to the bottom of such would be more appropriate for a psycho-analytic project, I'll simply note the following considerations. I think that a big part of my discomfort with embracing the "bicyclist" label was (is) my desire to approach the notion as a research question. Similarly, before this project, I definitely rode a bike for all sorts for purposes. But in those moments, I was relaxing, competing, or working, etc., but never was I a "bicyclist" *per se,* and frequently disparaged "them". Finally, I have several scholarly and practical differences with bicycling advocates in general, and professional planners in particular. My primary objection to bicycling advocacy is the failure to recognize that those who ride involuntarily typically do so as a result of broader social inequalities, while those who have the privilege of riding voluntarily frequently use their status to shame those who cannot (the cardependent, and other non-bicyclists). Bicycling advocates/activist can come across as unsympathetic to the difficulties of overcoming "car dependency", especially for those with the limited economic, social, and cultural means. Many bicyclists (especially those who self-identify as such) are members of powerful and/or privileged social groups/categories. Bicycling advocacy has also received considerable criticism as being elitist, racist, and sexist, topics I further explore in this in this dissertation.

³³ The question I ask my self is "would I be engaging in this activity if I was not conducting this research project?" Most often, the answer is "no".

³⁴ I have managed to ride a bike (in combination with taking the bus) in the commission of ALL field research activities, including interviews.

³⁵ The research on couriers is extensive, particularly considering the relatively small number of riders employed as bike messenger. Research particularly relevant to my comments here include:

- Fincham, Ben. 2007a. "Bicycle Messengers: Image, Identity and Community." Pp. 179-96 in Cycling and Society, edited by D. Horton, C. Rosen and P. Cox. Burlington, VT: Ashgate.
- Fincham, Ben. 2007b. "Generally Speaking People Are in It for the Cycling and the Beer: Bicycle Couriers, Subculture and Enjoyment." The Sociological Review 55(2):189-202. doi: 10.1111/j.1467-954X.2007.00701.x.
- Fincham, Ben. 2008. "Balance Is Everything: Bicycle Messengers, Work and Leisure." Sociology 42(4):618-34. doi: 10.1177/0038038508091619.
- Kidder, Jeffrey. 2006a. ""It's the Job That I Love": Bike Messengers and Edgework." Sociological Forum 21(1):31-54. doi: 10.1007/s11206-006-9002-x.

³⁶ My everyday trip journal entries quickly reached saturation. From such, the following five themes emerged:

The advantages I enjoyed due to prior experiences: I was a confident and competent rider; knew
my way around Boulder and Denver by bike (which is not same as by car); and knew how to
incorporate bicycling with public transport to extend my car-free range. Throughout my research, I

- have notice these are common barriers to initiating bicycling as alternative to driving with which I did not struggle.
- Moments of remorse and discomfort after (and even during) riding in a "rude, reckless, or scofflaw"
 manner (or simply perceived as such). Often the decisions that lead to riding behaviors, most
 importantly, interaction with other roadway users, are "snap judgments" that are a part of a "fight
 or flight" response.
- In addition to the circumstances of the situation in which my "rude, reckless, and scofflaw" behaviors occurred, I wrote of the subsequent cognitive efforts I used to "neutralize" (justify and excuse) my behavior (Scott & Lyman 1968).
- Discomfort with my inability to accommodate others (family and friends in particularly) by carrying loads, passengers, traveling far or fast, etc. due to being on a bike, and the sense that such was selfish or overly individualistic.
- My feelings of self-consciousness about the consequences of having biked, such as being sweaty, "geared out", under-dressed, greasy, late, etc. (Aldred 2013b:263). This self-consciousness was particularly acute in formal and professional settings.
- 37 Most importantly the Daily Camera; Denver Post; The Blue Line; StreetsBlog (Denver and USA); Community Cycles media including the Yahoo group Boulder Bike Commuters; the Google Groups Bicycling Equity Network and BiCicultures; Boulder Bike Party on Facebook, as well as the written comments made in response media sources above.
- 38 Including Bike to Work Day, the B-360, Thursday Night Cruisers, Boulder Bike Party's lingerie ride (August 13, 2015); Boulder Bike and Brew Fest (August 15, 2015), and other similar "fun rides"
- 39 Including "Critical Mass" rides (in Boulder and Denver) and the 2009 Boulder "World Naked Bike Ride."
- 40 Specifically, my participant observation includes volunteering in the following capacities:
 - Community Cycles: BBC group moderator
 - BVSD: ToSchool Advisory Committee
 - Horizons K8 school: CASEO research, Trip Tracker volunteer, Green Team member

Though I do volunteer my time, presently I am not a dues-paying member of any bicycling advocacy organization.

- ⁴¹ For overview of the TAB and other CoB citizen advisory boards see https://bouldercolorado.gov/boards-commissions/transportation-advisory-board
- ⁴² Dr. Dan Piatkowski of the University of Nebraska Lincoln, and Dr. Wes Marshall of CU Denver. We met via, and still associate, as members of CU's Active Communities Transportation (ACT) Research Group http://www.actresearchgroup.org/. ACT facilitates an annual "summer research project". In April 2013, I proposed that collecting empirical data on "rude, reckless, and scofflaw" riders would make for a fun field-based research project. However, after some debate, the large-scale, online survey approach was chosen. Of course, this collaborative decision strongly influenced the possible future research questions and analyses, including its appropriateness for my dissertation.
- ⁴³ Papers and scholarly presentation based on "Scofflaw Bicycling Survey". Journal articles
 - Johnson, Aaron Samuel, Daniel Piatkowski and Wesley Marshall. 2017. "Bicycle Backlash: A Qualitative Examination of Aggressive Driver-Bicyclist Interactions." Transportation Research Record 2662:22-30. https://doi.org/10.3141/2662-03.
 - Marshall, Wesley, Daniel Piatkowski and Aaron Samuel Johnson. 2017. "Scofflaw Bicycling: Illegal but Rational." Journal of Transportation and Land Use 10(1): 05–36. http://dx.doi.org/10.5198/jtlu.2017.871.
 - Piatkowski, Daniel, Wesley Marshall and Aaron Samuel Johnson. 2017. "Identifying Behavioral Norms among Bicyclists in Mixed-Traffic Conditions." Transportation Research Part F: Traffic Psychology and Behaviour 46, Part A:137-48. http://doi.org/10.1016/j.trf.2017.01.009.

Conference presentations:

- 2017 Aaron Johnson, Daniel Piatkowski & Wesley Marshall Bicycling as Deviance Framework for intracampus mobilities. Invited presentation for CU Boulder Pedestrian Safety Committee. September 28, 2017
- 2017 Marshall, Wesley, Daniel Piatkowski & Aaron Johnson. Scofflaw Bicycling: Illegal but Rational World Symposium on Transport and Land Use Research (WSTLUR) 2017 in Brisbane, Queensland, Australia, July 3-6, 2017.
- 2017 Piatkowski, Daniel, Wesley Marshall & Aaron Samuel Johnson. Promoting bicycling in the face of "Bikelash" – Why Bicyclists Break the Law, and what it Means for Encouraging Active Transportation (poster) http://www.alr-conference.com/resources/updateable/pdf/ALR2017%20Poster%20Program%2020.2.17.pdf
- 2017 Piatkowski, Daniel, Wesley Marshall & Aaron Samuel Johnson. Bicycle Backlash: A
 Qualitative Examination of Aggressive Driver-Bicyclist Interactions. Presentation at the 96th
 Annual Meeting of the Transportation Research Board; Washington DC; January 8-12, 2017
- 2016 Piatkowski, Daniel, Wesley Marshall & Aaron Johnson. Bicycle backlash: A mixed-methods examination of aggression toward bicyclists. Podium Presentation at the Association of Collegiate Schools of Planning Annual Conference; Portland, OR; November 3-6, 2016.
- 2016 Aaron Samuel Johnson. Biking Bad: The Social Psychological and Interactional Difficulties of Being a Bicyclist. Presented at the Annual Meeting of the Society for Study of Symbolic Interactionism, Seattle, WA August 19, 2016.
- 2015 Piatkowski, Daniel, Wesley Marshall & Aaron Johnson. Scofflaw Cycling: Behavior, intention, and multi-modal interactions. Podium Presentation at the Association of Collegiate Schools of Planning Annual Conference; Houston, TX; October 22-25, 2015.
- 2015 Piatkowski, Daniel Conference Presentation. "Culture Wars: Understanding tensions between drivers and cyclists." Georgia Bike Summit. Milledgeville, GA.

⁴⁴ However, I would argue that nationally bicyclists could arguably be said to constitute a "hidden population" (Watters and Biernacki 1989).

⁴⁵ We call this research strategy "targeted sampling." It is a purposeful, systematic method by which controlled lists of specified populations within geographical districts are developed and detailed plans are designed to recruit adequate numbers of cases within each of the targets. While they are not random samples, it is particularly important to emphasize that targeted samples are not convenience samples. They entail, rather, a strategy to obtain systematic information when true random sampling is not feasible and when convenience sampling is not rigorous enough to meet the assumptions of the research design (Watters and Biernacki 1989: 420).

⁴⁶ Five interviews were facilitated by videoconferencing technology (primarily Google Hangouts) but were still face-to-face and synchronous.

⁴⁷ Qualitative Interviews vs. *In situ* discussions

- Prearranged
- Written consent
- Researcher status revealed to participant
- Use interview question guide
- Audio recording created
- Written transcript*
- Interview fieldnotes*
- All analyzed as interviews

- Impromptu
- Verbal consent
- Researcher status not necessarily revealed to participant
- Do not use interview question guide
- No audio recording created
- No transcript
- Observational fieldnotes that include quotes and paraphrased portions of discussion along with as much of information called for by interview fieldnotes as possible.
- A selection analyzed as interviews, most analyzed as fieldnotes

- ⁴⁸ While obtaining informed consent is important, I strive for an egalitarian interaction in which stories are swapped. However, obtaining consent fosters a situation where I, the expert, expect information from layperson, and is a situation I work to avoid.
- ⁴⁹ Tracking the interview on paper was necessary at the beginning of my research only. Eventually, I found that I was able to "track topics" in my head, what Robert Emerson calls "headnotes" (Emerson et al. 2011).
- ⁵⁰ What I refer to here as "interview fieldnotes" are in practice synonymous to Miles and Huberman's (1994: 51-53) "contact summary sheet". Baring unanticipated hindrances, I completed this immediately following the interview, and always within 24 to 48 hours.
- ⁵¹ Contact Summary Sheet (Miles and Huberman 1994: 51-53):
 - What were the main issues or themes that occurred to me in this interview/observation?
 - Summarize the information you got (or failed to get) on each of the topics/questions for this interview/observation
 - Anything that struck me as salient, interesting, illuminating or important in this interview/observation
 - What new (or remaining) questions do you have in considering the next interview/observation?
- ⁵² In addition to better understanding interview participants as a group, I used this quantitative information to facilitate the aforementioned "targeted sampling strategy."
- ⁵³ And others, including:
 - Charmaz 2006:113
 - Irvine 2000:15
 - Rubin & Rubin 2012:63
 - Also see http://www.qualitative-research.net/index.php/fqs/article/view/1428/3027
- ⁵⁴ I used a variety of media to record and digitize fieldnotes. Depending on the point in my project and the circumstance in which it was recorded, fieldnotes were recorded on paper, as digital audio and/or video recording, or typed as a Microsoft OneNote page. Eventually, I uploaded all fieldnotes and analyzed them using the qualitative analysis software NVivo.
- ⁵⁵ Though I separate the process into "interview fieldnotes" (completed pre-transcription) and "interview summary" (completed post transcription), Rubin and Rubin (2012) and Miles and Huberman (1994) are both describing a generally non-analytic 1st step that is distinguishable from "coding".
- ⁵⁶ In the social sciences, triangulation (AKA cross checking Douglas 1976) is often used to indicate that two (or more) methods are used in a study in order to check the results. The concept of triangulation is borrowed from navigational and land surveying techniques that determine a single point in space with the convergence of measurements taken from two other distinct points. The idea is that one can be more confident with a result if different methods lead to the same result.
- ⁵⁷ I believe the probability and magnitude of potential harm resulting from recounting roadway experiences is far less than the probability and magnitude of actually experiencing harm from routine roadway use!
- ⁵⁸ Of particular interest would be group interviews (focus groups) with an equal representation of riders and non-riders.
 - Morgan, David. 1997. "Planning and Research Design for Focus Groups" in Qualitative Research Methods Series (pgs. 31-45)
 - Berg, Bruce and Howard Lune. 2011. Chapter 5, "Focus Group Interviewing" in Qualitative Research Methods for the Social Sciences (pgs. 164-194)
 - Hunt, Darnell. 1999. "Raced ways of seeing O.J." in O.J. Simpson Facts and Fiction (pgs. 181-215)
 - Hollander, Jocelyn. 2004. "The Social Contexts of Focus Groups" in Journal of Contemporary Ethnography (pgs. 602-637)

- ⁵⁹ I've settled on the term "interdisciplinary" because mobilities paradigm historian Mimi Sheller (2016) uses the descriptor. Mobilities scholars also have described the paradigm as "cross", "trans" "multi", and even "post" disciplinary really anything but "intra-disciplinary". And while in some instances these terms have distinct meanings, unless otherwise noted, I will use the terms interchangeably.
- ⁶⁰ Here, the term "paradigm" is used in the "Kuhnian" (1962) sense, and as characterized by Sheller 2016:10-11.
- ⁶¹ For more information see ...
 - mCenter website: http://drexel.edu/coas/academics/departments-centers/mobilities
 - CeMoRe website: http://www.lancaster.ac.uk/fass/centres/cemore/index.php
- ⁶² This assessment of the paradigms influence is based on Kuhnian measures of a "paradigm shift" and includes:
 - citation data
 - journals and book series
 - research centers and clusters, professorships, and departmental concentrations
 - dedicated funding sources
 - workshops, conferences and events
 - academic degrees, programs, tracks, courses and textbooks
 - presence of mobilities research in mainstream disciplinary journals and conferences
 - further specialization (e.g. mobilities and disasters, mobilities and climate change, etc.)

And I will add ...

- Social media groups and virtual networks
- Websites and blogs, especially if participation by paradigmatic leaders,
- presences of mobilities thinking in policies and practices of civic and advocacy organizations.
- ⁶³ For a full accounting of the ways Goffman's ideas, as well as those "inspired" by him, have been used to better understand embodied mobility see Jensen 2010:339-349.
- ⁶⁴ Ole Jensen has most extensively applied the ideas of Goffman to contemporary mobilities. His earlier works featured the Goffmanian concern for microlevel interaction but adapted for understanding contemporary embodied mobility. His most recent works (2013, 2014) is at a more framework level. For more information on Ole Jensen see http://personprofil.aau.dk/104214
- ⁶⁵ Along with his notion of the "mobile with", Jensen (2013) incorporates and extends Goffman's ideas in his theories of the "mobile situation" (p.10-13, 38), "networked self" (p.84-88), as well as several others including: "negotiation in motion", "mobile sense making", and "temporary congregations" (p.138). "For example, within a staged approach, Jensen argues we need to consider the "mobile with" (how we flow in and out of groupings), the "team" (a grouped mobility), "temporary congregations" (when mobility creates momentary collectives) and "negotiation in motion" (the dynamic interactions that occur whilst moving) (page 4). As such, throughout Jensen's book "the lexicon of mobilities" is expanded, providing new concepts that others might apply to their mobilities research (p.4).
- ⁶⁶ As will be discussed in Chapter 4, "enforcement" of traffic laws is a fundamental aspect of bicycling advocacy due to the belief that it will make the roads safer, and more attractive, to riders. More so, within bicycling advocacy and transportation planning circles, the cause of, and how to respond to, "biking while black" is a divisive issue often derails efforts to promote riding as an alternative to driving (Golub 2016; Hoffman 2014; Lugo 2018 and more).
- ⁶⁷ Though not well-developed, Goffman did insinuate that there are forms of communication that might "stretch" "the situation", or "transform a mere physical region into the locus of a sociologically relevant entity" (1963:154) "... a concern for what one individual can be alive to at a particular moment, this often involving a few other individuals and not necessarily restricted to mutually monitored area of a face-to-face gathering" (1974:8)

⁶⁸ Along with many mobilities scholars, I use the term "affordance" to emphasize the interactive character of the human-build environment relationship and emphasize the emergent rather than causal character of the bike-rider assemblage. Many would-be riders do not, or cannot, use bicycling facilities effectively regardless of their availability, while others will ride even if they are absent.

- Gibson, James. (1979) The Ecological Approach to Visual Perception, New York: Psychology Press.
- Donald Norman (1988) The Design of Everyday Things, ISBN 0-465-06710-7 ... Originally published under the title The Psychology of Everyday Things, often abbreviated to POET.
- Donald A. Norman (1999). Affordance, Conventions and Design. Interactions 6(3):38-43, May 1999, ACM Press.
- ⁶⁹ In many ways, scientific philosophies and methodological approaches are like religion and "commonsense" assumptions. They tend to simply "feel right" and exist independent of and a priori to a particular research project. But this is OK because no approach is inherently wrong, but rather evaluated on its usefulness, utility, pragmatic value to a particular project. Along these lines, not only do I enjoy assemblage theory and Goffman, but also find them extremely useful and very effective in producing novel insights on an important, and nearly universal, "everyday" phenomenon.
- ⁷⁰ While assemblage theorists are self-aware of, and well-known for, their divide-spanning efforts, the same cannot be said of Goffman (not even of himself). I believe it primarily due to writing in an era before such divides were recognized as problematic, and Goffman's general eschewing of "grand projects". Nevertheless, Goffman scholars such as Charles Lemert and Ann Branaman (1997:xlvii, lxxxi) and Gary Allen Fine (2007) have suggested his ideas are divide-spanning, and mobilities theorists such as Ole Jensen (2013) and Richard Randell (2017) have used Goffman's ideas in just such a capacity.
- ⁷¹ Expounding on the relationship between critical realism, post structuralism, and other post-positive ontologies, and assemblages (much less Goffman and interpretivism / anti-positivism) is outside the framework of this project. While specific post-positivist philosophies each have unique features, for the purposes here, they are similar enough to be discussed interchangeably. When necessary I will highlight nuanced differences.
- ⁷² Goffman was not a post-structuralist per se (though it might be said he was a "pre-post-structuralist") and it has been said that Goffman was accidently the first postmodern social theorist. And while there is little in the early writings of post-structuralists to suggest they considered Goffman's work, there are few, if any, points of conflict or contradiction between his and a post-structuralist approach to structure and agency.
- ⁷³ The closely associated concepts of mind, identity, and personality have been a topic of interest for qualitative and interpretivist scholars since James (1890), Cooley (1902), and Mead (1934) published their seminal works at the turn of the 20th Century. Over the years, a sustained interest in the sociological study of the self and associated phenomena has amassed a large body of theoretical and empirical works. Here I define the concepts of 1) mind, 2) self, 3) identity, and 4) personality. The distinctions are inspired by, but not entirely consistent with, the definitions put forth by Gecas (1982), and Gecas and Burke (1995).
- (1) I use the term mind to describe the cognitive processes that give rise to reflexive thought, the Faustian dialogue between social identities and idealized self-conceptions that is, what others think of "me" compared to what "I" think of myself. The mind is a "reflexive phenomenon that develops in social interaction" (Gecas 1982:3) and allows individuals to think about the thoughts of others, those thoughts about themselves in particular, and subsequently adjust their thoughts and behaviors in response. The concept of mind provides the philosophical underpinning for social-psychological inquiries into the self but is itself not accessible to empirical investigation (Gecas 1982:3).
- (2) Referencing the works of James (1890), Cooley (1902) and Mead (1934), Gecas and Burke describe the self (or self-concept, self-image) as "all the products, or consequences, of this reflexive activity" (i.e. the mind), and "the sum total of all of an individual's thoughts and feelings about him/her-self as an object" (Gecas and Burke 1995: 42). It is from the "dialogue of the 'I' and 'Me'" that "the self" emerges (Gecas 1982: 3). The self affords a sense of spatial-temporal continuity and finiteness, as well as, an awareness of one's own self that is the quality of being "mindful" and "self-aware". The awareness of one's own self is evidenced by the popular belief in a "true self", or what Gecas and Burke call an

- "essential self", which differs "from mere appearance and behavior" (Gecas and Burke 1995: 42). But unlike Gecas (1982) and Gecas & Burke (1995), I use terms such as "the self", "self-concept", and "self-image" as conceptual synonyms, with the primary distinction being syntactic. Despite a number of varying approaches to the topic of the self (Stryker 1980; Irvine 2013; Hewitt 2014), it is the insistence that the self emerges from social interaction that marks this tradition as sociology (Stryker 1980). The self is a social construction, built in socialization and renovated in the here and now of routine, and everyday interactions. In more positivistic terms, the self is the effect of our social experiences, not the cause of them; the outcome of our social interaction, not the explanation for it. As Goffman argued in The Presentation of Self in Everyday Life (1959) "a correctly staged and performed scene leads the audience to impute a self to a performed character, but this imputation this self is a product of a scene that comes off, and is not a cause of it" (p.252).
- (3) I find it useful to think of one's self as being comprised of many intersecting identities, such as man/woman, rich/poor, cheerful/fearful, rider/driver, that refer to whom, and what, one is. Identities are attributed to one's self, by one's self, and, perhaps more importantly, by others based on physical appearance, social status, group memberships, and personality. Gecas and Burke write: "In sociology, the concept of identity refers both to self-characterizations individuals make in terms of structural features of group memberships, such as various social roles, memberships, and categories (Stryker 1980), and to the various character traits an individual displays and others attribute to an actor on the basis of his/her conduct. In a sense, identity is the most public aspect of self" (1995:42). Unlike one's self-concept, identities are not wholly subjective, and may be embraced and readily internalized, that is, enthusiastically made parts of one's "true self-conception" (Gecas & Burke 1995), or resisted and merely "managed" as a part of one's public "presentation of self" (Goffman 1959). While the presentation of one's self frequently is directed at others, Irvine (2000) observes that sometimes one's own self takes the role of the audience. Whereas Goffman emphasizes the management of identities directed at others, there also exists a much more internal "impression management directed at one's self".
- (4) Lastly, I use the term personality to refer to the sum of a nebulous number of attitudinal, behavioral, and affective characteristics and qualities that distinguish an individual as a unique person (Gecas and Burke 1995), and of which one's self is (to varying degrees) aware, as in "self-aware". There is some interesting research (from beyond sociology) that suggests certain "personality types", those that are "risk seeking" and "confrontational", pre-dispose some individuals (mostly young, white, males) to bicycling (Thompson 2015, Lajunen and Parker 2001, Gat and McWhirter 1998). Though the concept of personality is of general relevance to this project, I will primarily be using the terms identity and self in the ways defined above, and the terms mindful and mindfulness to discuss the reflexive self-awareness of individuals.
- ⁷⁴ After some consideration, including the terms bikeself, bikerself, bicycleself, I chose the term "riderself" to emphasize the actor / action that at is essential to the concept. One does not have a riderself if they do not ride a bike.
- ⁷⁵ Randall notes: "To think about automobility in these terms, in contrast to thinking about drivers as they are conceptualized within everyday automobility, is, however, neither necessary, nor sufficient, and paradoxically *possibly of no utility whatsoever*, for going about one's everyday practical activities in an automobilized society. It bears adding to the list above that 'the autoself' is also: (4) a self whose construction and comprehensibility assumes familiarity with what can only be described as, for most ordinary members of a society, the arcane texts of Goffman and of contemporary automobility studies. *The utility of a concept such as 'the autoself,' in short, depends on whether it can help us usefully reconceptualize 'the driver' [or the rider] as this entity has been understood within that specialized discourse called 'contemporary automobility studies' (2017:669, emphasis added).*
- ⁷⁶ Scenography is the study and practice of designing scenes, including the space, text, research, art, performers, directors and spectators (Howard 2009). The term originated in theater. A scenographer works together with the theater director to make the message come through in the best way they think possible, the director having the leading role and responsibility particularly for dramatic aspects such as casting, acting, and direction and the scenographer primarily responsible for the visual aspects or "look" of the production which often includes scenery or sets, lighting, and costumes, and may include projections or

other aspects. While a common role in theatrical production teams in most countries, the position of scenographer is very uncommon in the United States, where this task is generally parceled out among several people, principally the scenic or set designer who generally spearheads the visual aspects of the production. The production's design team often includes designers for: scenic design, lighting, sound, projections, costumes, properties, choreography, and sometimes others. Plays are usually produced by a production team that commonly includes a director, scenic or set designer, lighting designer, costume designer, sound designer, dramaturg, stage manager, and production manager.

77 On May 2, 2018, in the midst of writing this chapter, People For Bikes (PfB) debuted a new bicycling rating scheme that they are calling "Places for Bikes". (https://peopleforbikes.org/blog/americas-best-places-bikes-new-system-rates-480-u-s-cities/) On May 3, 2018 I had brief discussion via text w Michael Anderson, author of the PfB blog that announced the Places for Bikes ratings in which he suggests that the Places for Bikes is meant to complement the LAB's BFC scheme. May 18, 2018 Andrew Small writes article touting the new Places for Bikes rating scheme and questioning the validity of the LAB's BFC rating due to heavy reliance on "biking to work" numbers. (https://www.citylab.com/transportation/2018/05/dont-get-too-excited-about-bike-to-work-day/560690/) While methodologically rigorous and a potential alternative to the LAB's BFC rating scheme I do not use it as such for several reasons:

- The BFC is still very popular among Boulder and Denver stagers, more so than the brand-new Places For Bikes rating scheme
- I have BFC data that is not publicly available and it would likely be difficult to obtain the same from PfB.
- As Michael Anderson suggests, the schemes are complementary (though I suspect he was being tactful). And while there is some shuffling in the order of the ranked communities, for the most part, the usual communities are represented in both rankings, suggest that differences are primarily methodological, and both rating schemes are valid (Babbie 2001)

⁷⁸ Due to the structure of available data, the terms "Boulder" and "Denver" variously refer to the City of Boulder and surrounding Boulder County which is coterminous with the Boulder SMSA. Denver is a combined City and County, and the largest municipality in the Denver-Aurora-Lakewood SMSA. The Denver CSA in which Boulder and Boulder County are located, the State of Colorado, and U.S.A. are subsuming Census designated placed used for comparison. When of relevance, I will specify between Boulder and Boulder County, as well as, Denver and the "Denver metro area".

I am not aware of any reputable, much less journalistic or scholarly, effort to construe Boulder and Denver as the same community. Even the U.S. Census Bureau recently (2013) removed Boulder County from the now named Denver-Aurora-Lakewood SMSA to create a new SMSA comprised of Boulder County and its municipalities. However, Boulder remains a part of the Denver CSA. (See OMB Bulletin No. 13-01: Revised Delineations of Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas, and Guidance on Uses of the Delineations of These Areas" (PDF). United States Office of Management and Budget. February 28, 2013.)

Similarly, fieldnotes express my surprise with the lack of interaction between Boulder and Denver municipal officials (which is not true of City of Boulder and Boulder County officials), professional advocates, and even CU Boulder / UC Denver scholars. Typically, in the U.S. everyday embodied mobility, bicycling in particular, is staged from above primarily at the local (county and municipal) level. This is certainly true of Boulder and Denver. While, regional, state, and federal involvement in the staging of everyday mobilities is common, and an important source of standards, regulation and funding, local governments plan, fund, engineer/design/build, maintain, manage, and police bicycling infrastructure.

⁷⁹ Higher Comfort Index values indicate a more comfortable year-around climate. For this new version of the comfort index, Sperling collected the average high and low temperatures for every day of the year. The index uses the number of days annually where the high temperature fell within the commonly accepted comfort range of 70-80 degrees. Plus, we penalized places which are not only hot, but hot and sticky, using summer dew point values. https://www.bestplaces.net/docs/datasource.aspx

⁸⁰ I consider myself (as do my family and friends) to be heartier than most when it comes to the outdoors and am definitely a year-round rider. Yet I also remark several times in my fieldnotes and journals that "you're never out alone in Boulder". No matter how adverse the conditions are, I always see evidence that

others are out riding! For more on Colorado's robust outdoor winter culture see: http://www.slate.com/articles/news and politics/explainer/2010/09/rocky mountain thigh.html

- ⁸¹ Though Boulder is a relatively small community, it has much larger presence on several national (and international) stages, earning an impressive number of accolades, awards, honors, and superlatives, appearing on at the top of many lists of "best places" including for its bicycling. For a list of accolades see: https://bouldercolorado.gov/communications/best-of-boulder-community-honors
- ⁸² Or at least more educated when measured in terms of the proportion of the population with graduate or professional degree.
 - Boulder 38.5%
 - Boulder County 27.6%
 - Denver 17.7%
 - Colorado 14.3%
 - USA 11.5%
- ⁸³ Homes in the City of Boulder are particularly expensive (recent sale value averages more than \$1 million). Median prices across the county range from \$357,900 in Longmont to \$615,000 in the suburban East County (2nd highest). The county-wide medium home price is \$529,000
- ⁸⁴ Boulder's poverty rate is artificially high due to a large undergraduate university population that earns little income, most of whom are "poor" in only a statistical sense. Boulder's poverty rate falls to 11% at the County / SMSA level.

https://www.census.gov/quickfacts/fact/table/bouldercitycolorado,denvercitycolorado,bouldercountycolorado/IPE120216

- Rates of bicycling vary considerably due to differences in methods of operationalization and measurement. Bicycling scholars use a variety of measurement tools, the most popular being surveys, trip diaries, manual point-in time, and automated, location-based counts. Bicycling is commonly operationalized as riding to work or school (commuting) on given day, riding for any reason (including recreationally) in given time frame, and mode share the proportion of traffic on the road comprised of bike riders at a given time. No one measure is perfect, and none are directly comparable. Surveys using random samples of large populations, such as the Census' American Community Survey (ACS) result in much lower rates, than mode share values obtained from trip diaries. Given such, it is important to use multiple and/or similar measures when making comparisons and between places and times, as I have tried to do here.
- ⁸⁶ Like data on rates of riding, bicycle collision and crash data is difficult to come by, especially in a standardized (comparable) format. Raw numbers for specific municipalities are easier to find but make comparisons difficult. For example, bike-car collisions per pop doesn't account for difference in rates of riding. A common and precise "exposure' denominator is needed. There are also data collection problems in that car-bike collisions, especially if injuries are minor or non-existent, are more likely than car-car collisions to be unrecognized as "crime", are under-reported and many important details (sometimes the entire event) go unrecorded (Adler and Adler 2001) due to police bias and lack of training (see Chapter 2 for more information).
- ⁸⁷ However, the Places for Bikes' analysis also highlights important differences in the level of stress riders experience, with Boulder being a much less stressful (even if more dangerous) place to ride, mostly likely due to the extensive off-street pathway network, and suggesting a concerning divergence in riders' perception versus "reality". For more information see:
- https://cityratings.peopleforbikes.org/methodology/
- https://cityratings.peopleforbikes.org/city/boulder/
- https://citvratings.peopleforbikes.org/citv/denver/
- ⁸⁸ I realize that the term "stager" is unconventional outside of the home staging / real estate business where it refers to preparing a room, apartment, or house for sale. However, this is just the meaning I intend, one where a stager is a person, group, or organization that stages ("sets the stage") for bicycling.

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⁸⁹ Professional bicycling Advocates stage bicycling under the auspicious of formal, legally recognized organizations and are compensated for their efforts. For some advocates, more people riding bikes, more frequently, and more safely is an end in itself, and others it is a means to another end, such as reducing roadway congestion, reducing CO2 emissions, and selling stuff. The stagers discussed here exhibit both orientations, and I will highlight the distinction when it is relevant.

⁹⁰ Another common way of discussing bicycling facilities is to distinguish between the readily observed and well-known, "hard" infrastructure of pathways, bike lanes, cycle-tracks and bike racks, and the "soft" infrastructure (Graves 2014) of non-physical resources such as, bicycling promotion plans, devoted staff, dedicated funding, rider-safety ordinances, as well as, support from the non-profit and business communities (Jensen 2013). Soft infrastructure is all the services that are required to maintain the economic, health, and cultural and social standards of a population. It includes both physical assets such as highly specialized buildings and equipment, as well as non-physical assets, such as communication, the body of rules and regulations governing the various systems, the financing of these systems, the systems and organizations by which professionals are trained, advance in their careers by acquiring experience, and are disciplined if required by professional associations. It includes institutions such as the financial system, the education system, the health care system, the system of government, and law enforcement, and emergency services. The essence of soft infrastructure is the delivery of specialized services to people. Unlike much of the service sector of the economy, the delivery of those services depends on highly developed systems and large specialized facilities, fleets of specialized vehicles or institutions.

- http://www.governing.com/blogs/view/gov-soft-infrastructure-smart-cities.html
- http://sdotblog.seattle.gov/2012/01/31/the-many-flavors-of-bicycle-facilities/
- https://durhamnc.gov/DocumentCenter/View/3397 (figure 5.2)

⁹¹ My understanding of the "Five E's" is based largely on the LAB's presentation of this idea. However, I am also aware of, though have decided not to include in this analysis, a sixth "E" that stands for "equity". Safe Routes to School, and many transportation-justice minded advocates, call for, and work to support safe, active, and healthy opportunities for children and adults in low-income communities, communities of color, and beyond. The sixth E is meant to incorporate equity concerns across the other E's to understand and address obstacles, create access, and ensure safe and equitable outcomes.

- http://bikeleague.org/bfa
- https://bikeleague.org/content/5-es
- https://www.saferoutespartnership.org/healthy-communities/101/6Es
- ⁹² For more information on the Share the Road campaign see: https://www.codot.gov/programs/bikeped/building-a-bike-ped-friendly-community/share-the-road
- ⁹³ The Colorado Bicycling Manual is the official rules of the road and trail for bicycling and walking in Colorado.
 - https://www.codot.gov/programs/bikeped/information-for-bicyclists/bike-ped-manual
 - https://www.codot.gov/programs/bikeped/information-for-bicyclists/bike-ped-manual/2008-10-official-bicycling-laws.pdf

US Department of Transportation, Federal Highway Administration's Manual on Uniform Traffic Control Devices, aka, the FHWA's "MUTCD"

- https://mutcd.fhwa.dot.gov/
- https://mutcd.fhwa.dot.gov/htm/2009r1r2/part9/part9b.htm
- ⁹⁴ Boulder is also activity planning six more over/under passes, and dozens of additional proposals.
- ⁹⁵ According to People for Bike's Bicycle Network Analysis, Boulder's "network" score of 4.1 (out of 5) is the highest in the nation. Denver's network score is 2.3, about half if Boulder's, and just barely in the top 100 cities evaluated by People For Bikes.
 - https://cityratings.peopleforbikes.org/all-cities-ratings/
 - https://cityratings.peopleforbikes.org/methodology/

⁹⁶ Bike are a heavily promoted and adopted solution to what transportation planners refer to as the "first / last mile problem".

⁹⁷ More information about DRCOG...

- DRCOG is a nonprofit, voluntary association of local governments in the Denver region. While DRCOG is a public agency, it is not a unit of government. DRCOG does not have statutory authority to require local governments to be members or to follow its plans.
- DRCOG also cannot tax, issue bonds, or legislate.
- However, because it fulfills legally obligated roles, and is funded with public money (its members use taxpayer money to pay dues), I have classified DRCOG as a civic stager.
- Federal transportation planning dollars comprise the majority of DRCOG's funding sources.
 Participating members pay dues (based on their population and assessed valuation), which
 contribute 8 percent of DRCOG's budget and provide important local match for federal funds. In
 addition, the dues help fund the organization's state and federal legislative advocacy efforts. The
 Board adopts its operating budget each fall.
- https://drcog.org/about-drcog/drcog-faqs
- ⁹⁸ As the largest and most influential bicycling stager in regard to K-12 schools and efforts to promote alternatives to driving, there is so much more to say about SRTS than space permits. For more information see:
 - http://www.saferoutesinfo.org/
 - https://www.codot.gov/programs/bikeped/safe-routes
 - https://bouldercolorado.gov/goboulder/safe-routes-to-school-program
 - https://www.denvergov.org/content/denvergov/en/environmental-health/community-health/safe-routes-to-school.html
- ⁹⁹ Trip tracker was created and is administered by then-BVSD bus driver Peter Hurst. Since its inception the program has been adopted by other schools and districts. However, the Trip Tracker program is not without its critics who see the program as relying too heavily on extrinsic motivation, and akin to bribing kids to ride.
 - http://bvsd.org/transportation/toschool/tracker/Pages/default.aspx
 - https://www.bouldercounty.org/transportation/multi-modal/trip-tracker/
 - http://bvsd.org/transportation/toschool/Pages/ToSchool.aspx
 - http://bvsd.org/transportation/toschool/tracker/Pages/TT-in-the-News.aspx
- ¹⁰⁰ CU's Environmental Center focuses on education and encouragement, while Parking and Transportation Services focuses on engineering campus infrastructure. The multi-stakeholder (and poorly named) Pedestrian Safety Committee focuses on enforcement.
 - https://www.colorado.edu/ecenter/transportation/cu-boulder-bicycle-program
 - https://www.colorado.edu/pts/getting-around/bicycle
- ¹⁰¹ The Commute is a DPS program that provides school leaders with tools to create and communicate School Travel Plans that develop proper pick-up and drop-off protocols to make campuses more friendly and safe for pedestrians and riders.
 - http://transportation.dpsk12.org/schools_departments/commutedps/
 - https://www.denvergov.org/content/denvergov/en/environmental-health/community-health/safe-routes-to-school.html
- ¹⁰² The Auraria Campus is the shared home of ...
 - The Community College of Denver
 - Metropolitan State University of Denver
 - University of Colorado Denver
 - https://www.ahec.edu/about-auraria-campus/campus-sustainability/alternative-transportation/bikes-on-campus

The "Idaho" or "safety" stop is an annually debated ordinance among Colorado law makers. In 2018, Colorado adopted SB18-144 which permits a municipality or county to adopt a local ordinance or resolution regulating the operation of bicycles approaching intersections with stop signs or traffic control signals, as well as provide guidance and standardizes the language. In general, "Idaho", or "safety stop" laws give riders the right to treat stop signs like yield signs and stop lights like stop signs. In 2011, the cities of Dillon and Breckenridge passed "stop-as-yield" laws, in 2012 Summit County passed a similar law for its unincorporated areas, and in 2014, the City of Aspen passed one as well. Fort Collins considered the same law in 2013, but it failed to pass. Most recently, in February 2019, the City of Thornton, and the first in the Denver metro area to take advantage of the new state law. Though several Colorado municipalities have adopted some sort of a safety stop ordinance, Boulder, Denver, and State leaders have not. While empirical evidence suggests that such a rule increases rider safety (primarily by allowing them to clear an intersection while free from car traffic), political will has been weak in the face of uninformed public opposition to the idea.

- https://www.cpr.org/news/story/colorado-cyclists-idaho-stop
- https://leg.colorado.gov/bills/sb18-144
- https://denver.streetsblog.org/2019/02/15/cyclists-can-roll-through-stop-signs-in-thornton-a-first-in-denver-metro/

¹⁰⁴ The discussion of CBOs that follows uses the criteria found in the old Bicycle Organization Project for what constitutes a community bike shop, namely:

- Non-profit bicycle organizations
- Bike shops that are accessible to people without money
- Shops that have an educational focus, teaching others how to fix bikes
- Shops that are volunteer run
- Organizations that ship bikes to communities in other countries
- Shops that provide free or low-cost services to the community
- Organizations that recycle bicycles and parts
- For more information see
 http://www.bikecollectives.org/wiki/index.php?title=Community Bicycle Organizations
- Also see Furness 2010:174

Boulder and Denver area PNP stagers observed include:

- For more about Community Cycles see https://communitycycles.org/about/
- For more about Recycles Bicycles see http://recyclebicycles.net/index.html
- For more about BikeDenver see https://bikedenver.org/
- For more about Bikes Together see http://bikestogether.org
- For more about Recycles Bicycles see http://recyclebicycles.net/index.html
- For more about People For Bikes see https://peopleforbikes.org/about-us/
- For more about the IMBA see https://www.imba.com/explore-imba/meet-imba
- For more about Bicycle Colorado see https://www.bicyclecolorado.org/

Though synonymous in every day speech, for the sake of clarity, I will use the term "bike shop" to discuss a place to build and repair bikes, and the term "bike store" to describe places to buy bikes, parts, and accessories. Bike shops and bike stores are often both located in CBOs

¹⁰⁵ Boulder and Denver area TMAs/TMOs observed include:

- Anschutz Medical Campus | Fitzsimons | VA Transportation Management Association <u>http://www.amctma.org/</u>
- Boulder Transportation Connections http://www.bouldertc.org/
- Commuting Solutions https://bizwest.com/2017/01/26/36-
 commuting-solutions-expands-service-area-rebrands/
- I-70 Coalition https://i70solutions.org/
- Northeast Transportation Connections http://netransportation.org/
- Sand Creek Regional Greenway http://sandcreekgreenway.org/our-greenway/
- Smart Commute Metro North https://smartcommutemetronorth.org/
- South 1-25 Urban Corridor TMA http://www.triptowork.com

- South Denver Transportation Management Association http://denversouthtma.org/
- The Transit Alliance http://www.transitalliance.org/
- Transportation Solutions Foundation http://www.transolutions.org/
- US36 Bike Way https://commutingsolutions.org/bike/us-36-bikeway/
- Way To Go https://waytogo.org/ (DRCOG's TMO)

And though not strictly TMAs/TMOs, the Denver and Boulder downtown business partnerships function as TMOs for their respective communities.

- http://www.downtowndenver.com/
- http://www.downtowndenver.com/experience-downtown/getting-around/walking-and-biking/
- https://www.boulderdowntown.com/about/downtown-boulder-partnership

For more information on Boulder and Denver area TMAs / TMO's see: https://www.codot.gov/programs/commuterchoices/tma-tmo.html

Transportation demand management, traffic demand management or travel demand management (all TDM) is the application of strategies and policies to reduce travel demand, or to redistribute this demand in space or over time. In transport, as in any network, managing demand can be a cost-effective alternative to increasing capacity. A demand management approach to transport also has the potential to deliver better environmental outcomes, improved public health, stronger communities, and more prosperous cities. TDM techniques link with and support community movements for sustainable transport.

¹⁰⁷ Support often includes start-up funding, marketing and promotion, and managerial/technical expertise. However, once up and running, TMA's funding comes primarily from member dues and grant money.

¹⁰⁸ Unlike the membership of intergovernmental organizations like DRCOG that are comprised entirely of county, city, and town governments, TMA/TMO members are much more heterogeneous and can include regional and local government agencies, transit providers, chambers of commerce and other business organizations, businesses, as well as the facility managers of campuses such as universities, shopping malls, and medical centers, their employees, customers, and collectives of nearby residents. For more information on TMA/TMOs see:

- https://drcog.org/about-drcog/member-governments
- https://www.vtpi.org/tdm/tdm44.htm

¹⁰⁹ I use such vague language because the guidelines and standards endorsed by these organizations are frequently deemed as autocentric by bicycling advocates, and in need of revision. Professional associations observed include:

- ASHTO is a nonprofit, nonpartisan association representing highway and transportation departments. AASHTO is an international leader in setting technical standards for all phases of highway system development. For more information see: https://www.transportation.org/home/organization/
- NACTO is an association of 62 major North American cities and ten transit agencies formed to exchange transportation ideas, insights, and practices and cooperatively approach national transportation issues. For more information see:
- https://nacto.org/about/
- https://nacto.org/publication/urban-bikeway-design-guide/designing-ages-abilities-new/choosing-ages-abilities-bicycle-facility/
- The mission of the Association of Pedestrian and Bicycle Professionals (APBP) is to grow the
 pedestrian and bicycle profession and its influence by facilitating the exchange of professional
 and technical knowledge, elevating practitioners' skills and defining the field. For more
 information see: http://www.apbp.org/?page=About_APBP
- For more on City of Boulder roadway and bicycling facilities design standards see https://bouldercolorado.gov/plan-develop/design-construction-standards
- For more on City of Boulder roadway and bicycling facilities design standards see https://bouldercolorado.gov/plan-develop/design-construction-standards
- For more on City of Boulder roadway and bicycling facilities design standards see https://www.bouldercounty.org/transportation/plans-and-projects/multimodal-standards/

For more on Denver roadway and bicycling facilities design standards see
 https://www.denvergov.org/content/denvergov/en/right-of-way-services/engineering-regulatory-analytics/engineering-plan-review/manuals-regulations.html

¹¹⁰ Rides and clubs observed include:

- For more on Bike to Work Day see https://biketoworkday.us/
- For more on the B360 see https://bouldercolorado.gov/goboulder/circle-boulder-by-bicycle

However, bicycling clubs such as Major Taylor Cycling Club, and the Front Rangers Cycling Club, and others dedicated to historically underserved riders manage to sponsor all members through partnering with civic stagers or businesses. For more information see

- http://majortaylordenver.com/?page_id=20
- http://frontrangersdenver.org/about/the-story/

For more on the BBC see https://buffalobicycleclassic.com/bbc/

For more on RtR see

- http://www.ridetherockies.com/history/
- http://www.ridetherockies.com/cause/

For more information on the bicycling clubs mentioned and similar others see:

WT*F

- https://communitycycles.org/event/wtf-night
- https://outspokin.org/
- https://phmelody.com/2012/01/09/wtf-and-the-cyclist-dialogue-about-identity-and-definitions/

MTCC

- http://majortaylordenver.com/
- http://www.neighborhoodlink.com/Major Taylor Cycling Club

FRCC http://frontrangersdenver.org/about/the-story/

Denver Women's Cycling

Denver Women's Cycling on Facebook

Naked Women Racing http://www.nakedwomenracing.com/

OutSpokin' https://outspokin.org/

Square 1 Cycling http://square1cycling.com/

Venus de Miles http://www.venusdemiles.com/

111 Charity rides in Colorado raised \$3.4 million dollars in 2015. For more information see https://www.codot.gov/programs/bikeped/building-a-bike-ped-friendly-community/bike-walk-study/executive-summary/execsum2.pdf/view

¹¹² For specific examples see

- https://bikestate38.com/organized-events/
- https://bikestate38.com/clippedin/

¹¹³ For more on Boulder's annual rider count see

- https://bouldercolorado.gov/transportation/pedestrian-and-bicycle-count
- https://www.bouldercounty.org/transportation/multi-modal/bikes/bike-count/

For more on Community Cycles efforts to solicit and report rider input see:

- https://communitycycles.org/advocacy/report-a-problem-or-close-call/
- https://communitycycles.org/advocacy-committee-application/
- https://communitycycles.org/advocacy/

¹¹⁴ For more on volunteer trail building and maintenance efforts see:

- https://www.comba.org/projects/denver-parks-recreation
- https://www.imba.com/explore-imba/trail-creation-and-enhancement
- https://bouldermountainbike.org/content/trail-building

¹¹⁵ Denver B-cycle was the first large-scale bike-sharing program in the nation when it began in 2003. For more information see

- https://www.denverbcvcle.com/
- https://boulder.bcycle.com/

¹¹⁶ For more information on Denver "bike hubs" see https://www.denverpost.com/2015/01/09/bike-hub-with-lockers-showers-at-denvers-union-station-could-open-by-fall/

¹¹⁷ For more information on these amenities see

- https://bouldermountainbike.org/content/valmont-bike-park-0
- http://www.rubyhilldenver.com/ruby-hill-mountain-bike-park/
- https://bouldercolorado.gov/goboulder/circle-boulder-by-bicycle
- http://www.downtowndenver.com/initiatives-and-planning/the-5280-loop/

¹¹⁸ For more information on volunteer enforcement efforts see

- https://bouldercolorado.gov/osmp/volunteer-programs
- https://bouldermountainbike.org/og/bike-patrol
- https://www.imba.com/nmbp#
- https://comba.org/programs/front-range-mountain-bike-patrol
- https://www.denvergov.org/content/denvergov/en/denver-parks-and-recreation/volunteer.html
- https://www.imba.com/ride/imba-rules-of-the-trail
- http://denvercruiserride.com/how-we-roll/

total economic impact of bicycling businesses in Colorado is substantial. (Unfortunately, only state-level statistics are available). According to Colorado Department of Transportation, and People for Bikes, the total economic benefit of the Colorado bike biz is over \$1 billion annually, with Bicycle Colorado puts this figure as high as \$1.6 billion. More so, these figures only count revenue from manufacturing, retail, tourism, races, and recreational rides, and associated payrolls. It does not include potential cost savings from riding as an alternative to driving as described in Chapter 1. Colorado has 152 suppliers and distributors, and 493 bicycle retailers. These businesses and those in the bike tourism sector this create 2546 year-round jobs, with an annual payroll of \$59 million. An additional 7500 seasonal FTEs add another \$40 million to the payroll figure. For more information on the economic impact of the bicycling business see:

- https://www.codot.gov/programs/bikeped/building-a-bike-ped-friendly-community/bike-walk-study/executive-summary/execsum2.pdf/view
- https://peopleforbikes.org/colorado-bike-biz/
- https://www.bicyclecolorado.org/initiatives/colorado-pedals-project/benefits-of-bicycling/
- https://www.denverpost.com/2016/11/08/biking-and-walking-bring-1-6-billion-in-benefits-to-state-aside-from-improved-health/

¹²⁰ As of January 2017, there are 22 publicly traded bicycle-related companies, only two of which are based in the U.S. and traded in NYSE http://www.bike-eu.com/sales-trends/nieuws/2017/01/stock-listed-bike-companies-grew-bigger-in-2016-but-china-left-its-mark-10128554

¹²¹ For more information see BikeState38.com https://bikestate38.com/bike-shops/

- For more information see Bike Life Cities http://bikelifecities.com/boulder-shop/
- Yelp's listings of Bike Stores (shops) in Denver https://www.yelp.com/search?find_desc=Bike+Shop&find_loc=Denver,+CO&start=1

While the retail bike biz is thriving in Denver and Boulder, this local trend belies a national trend to the contrary. For more information on the decline of specialty bike stores see

- https://www.statista.com/topics/1448/bicycle-industry-in-the-us/
- http://redkiteprayer.com/2015/08/where-have-all-the-bike-shops-gone

¹²² To learn more about the People For Bikes Coalition see

https://peopleforbikes.org/our-legal-structure/

For more information on the BPSA and similar organizations see

- http://bpsa.org/about/
- https://nbda.com/

http://www.bicvcleretailer.com/

Sources of quotes

- https://b.3cdn.net/bikes/123e6305136c85cf56_0tm6vjeuo.pdf
- https://peopleforbikes.org/wp-content/uploads/2017/07/PFB-0454-Retailer-Guide-v05.pdf

¹²³ In a politically charged move to protest the reduction in protection given to public lands by the federal government and The State of Utah, the Outdoor Industry Association recently relocated its offices and lucrative trade show from Salt Lake City to Denver. For more about the Outdoor Associations move from SLC to Denver see

- https://outdoorindustry.org/who-we-are/
- https://www.bizjournals.com/denver/news/2017/07/07/opinionwhy-the-huge-outdoor-industry-association.html

¹²⁴ To learn more about these sorts of bike tours offered by Boulder and Denver guides see

- http://www.boulderareabicycleadventures.com/
- https://www.beyondboulderadventures.com/
- https://boulderbiketours.com/
- https://www.milehighbiketours.com/bike-and-brew-tour

¹²⁵ Though the frequently used interchangeably with biking and bicyclist, I use the terms "cycling" and "cyclist" to connote organized competitive riding and riders, elite recreational and professional racing / racers. For an interesting discussion on the use of these and related terms see

- https://www.citylab.com/transportation/2015/02/dont-say-cyclists-say-people-on-bikes/385387/
- https://peopleforbikes.org/blog/how-smart-language-helped-end-seattles-paralyzing-bikelash/
- https://www.bikeforums.net/general-cycling-discussion/440298-biking-vs-cycling-there-difference.html
- http://www.cyclingnews.com/

¹²⁶ As ideal types, bicycle clubs and cycling teams are conceptually distinct. However, in "reality" there is considerable overlap at the youth and amateur levels of competition. For more on amateur competitive cycling in Colorado see https://www.coloradocycling.org/

127 For more on CU Boulder Cycling see https://www.colorado.edu/sportsclub/cycling/

¹²⁸ For more on these cyclists and teams see

- https://en.wikipedia.org/wiki/Mara Abbott
- https://en.wikipedia.org/wiki/Taylor_Phinney ... Taylor's father, Davis Phinney was also a professional cyclist and lives in Boulder.
- https://en.wikipedia.org/wiki/Tejay_van_Garderen
- https://www.theguardian.com/travel/2013/jul/20/tyler-hamilton-cycling-boulder-colorado
- https://slipstreamsports.com/
- https://en.wikipedia.org/wiki/EF Education First%E2%80%93Drapac p/b Cannondale

¹²⁹ All of the professional races mentioned are UCI 2.HC level races, and the Coors Classic was the primer race in the U.S. and the 4th largest race in world. For more on these professional cycling races see

- https://en.wikipedia.org/wiki/UCI race classifications
- https://history.denverlibrary.org/news/coors-classic-americas-first-big-bicycle-race
- https://en.wikipedia.org/wiki/Coors Classic
- https://en.wikipedia.org/wiki/USA Pro Cycling Challenge
- http://www.usaprocyclingchallenge.com/
- https://en.wikipedia.org/wiki/Colorado Classic (cycling)
- For a full list of amateur races see https://www.coloradocycling.org/calendar

¹³⁰ Bicycling related magazines produced in Boulder (to my knowledge, none are produced in Denver)

- Bicycling https://www.bicycling.com/
- 303 Cycling https://303cycling.com/
- BikeLife Cities (Catalyst Media) http://bikelifecities.com/
- Triathlete Magazine http://www.triathlete.com/
- VeloNews (VeloPress) http://www.velonews.com/

¹³¹ Not everyone who ascribes to a DIY ethos is a bicycling activist, thought they are likely to support bicycling in principle. Not all bicycling activists fully, or reflexively, ascribe to a DIY ethos, although riding a bike as an alternative to driving adheres to the fundamental principles of the DIY ethos. Thus, while not necessarily the same thing, the two approaches (activism and DIY) are largely complimentary.

¹³² In the course of this study, I have observed DIY bicycling activists engage in all but the evaluation and planning, and engineering efforts – strictly speaking. There are actually many examples of DIY bicycle engineering, a.k.a. "tactical", "guerilla", or "pop-up" activism. For example, see:

- https://www.theguardian.com/environment/bike-blog/2018/may/11/the-guerilla-cyclists-solving-urban-transport-problems
- https://en.wikipedia.org/wiki/Tactical_urbanism

However, no such effort was observed, or known to have occurred in Boulder or Denver, during this study. Also, while instances of DIY bicycle building, repair, customizing, and accessorizing, as well as, the fabrication of bicycling gear and apparel abound, because the products are not typically sold in any significant quantity (in accordance with the DIY ethos), there is little impact on bicycling rates or experiences beyond the maker, and thus not considered a staging, or activist, effort. For more on the DIY ethic and bicycling see

- Carlsson 2002 and 2012
- Furness 2006 and 2010
- Horton 2002
- Rosen 2002

¹³³ Like other marginalized groups, well-behaved bike riders rarely garner the attention of other road and pathway users. However, research consistently shows that images of rude, reckless and scofflaw riders pervade the public mind.

134 For information on "earn-a-bike" and "fix-a-bike" programs in Boulder and Denver see

- https://communitycycles.org/what-we-do/community-workspace/
- https://communitycycles.org/eab2/
- https://bikedenver.org/bring-out-yer-bike/
- http://bikestogether.org/programs/fix-your-bike/
- http://bikestogether.org/earn_a_bike/

¹³⁵ CBOs, in general, are institutionalized stagers, thus they don't precisely fit the ideal type definition of a DIY activist. Nonetheless, their low and no cost programs run counter to mainstream, the Bike Biz in particular, efforts to sell more bikes and bike stuff. Of those observed in the course of research, the CBO that best embodied the DIY "countercultural vibe" (Furness 2007, 2010), was the now defunct Derailer Bicycle Collective in Denver. In 2006, the Derailer was served with cease-and-desist orders from the City, essentially for being too successful at their stated mission – giving away free bikes, food, and sometimes a place for homeless youth crash – given their modest facilities. Also, in 2004 the FBI investigated the Derailer and its director Sarah Bardwell, for being suspected terrorists. For more on the DBC see

- http://www.westword.com/news/cycle-killer-5089940
- http://www.westword.com/arts/derailer-bicycle-collective-celebrates-its-tenth-anniversary-5793653

¹³⁶ Sometimes an order to the check-points is specified, a route designated, or other tasks such as signing faux manifest, transporting and delivering items, etc. is required at the check points

¹³⁷ In Denver, the most recent alley cat races were "organized" (hosted) by Denver Chain Chase, which billed them as part of a "bicycle race series and events in Denver. Rotating formats. Multiple classes. Cash

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Prizes. Open to everybody. Organized by Denver Chain Chase and presented by SKBC". For more information see

- https://www.facebook.com/DenverChainChase/
- https://www.facebook.com/SKBikeCrew/
- https://skbc.bigcartel.com/ (DIY apparel makers).

Examples of recent ally cat races include:

- Atomic Hell Cat, held on Sept 24, 2016 (https://www.facebook.com/events/1041209612628729/)
- The King of Colfax (https://vimeo.com/62392147, upload 2013) ... the last King of Colfax was held on Aug 10, 2014 (https://www.facebook.com/events/704098446297700/)
- An unknown Denver alley cat race https://www.youtube.com/watch?v=RZhP89cz614 (upload 2015)
- Team Alley Cat (https://www.facebook.com/events/507964825904800/)

Other sources of information on alley cat races include:

- http://www.coloradodaily.com/outdoor-recreation/ci_15424855
- https://www.mymetmedia.com/news/cyclists-race-all-over-denver-for-the-mile-high-messenger-challenge/

¹³⁸ For more information on the last Boulder alley cat race see

- http://bactothefuture.blogspot.com/ ... last Alley Cat in Boulder Sept 2011
- https://twitter.com/bac races
- https://www.facebook.com/pages/Boulder-Alley-Cat/161075167300111
- http://www.coloradodaily.com/outdoor-recreation/ci_15424855 ... 2010, says they've been organized since 2008, expect 30 people

¹³⁹ The police rarely intervene in alley cat races because they are relatively small, and the participants are dispersed. Unlike Critical Mass rides and World Naked Bike Rides, alley cat races are not about drawing the attention of non-participants. Alley cat racers do not ride in large group, or even take the same route. From the perspective of an unaware observer, alley cat racers are just another rude, reckless and scofflaw bike rider. If caught by the police (which in my experience is easier said than done) a racer may be stopped and ticketed, but this would not deter the other racers. Rather evading the police is just one of many challenges that come to bear on the outcome of the race. Thus, rather that efforts by the police, the decline in the number of participants and the frequency of alley cat races is primarily attributable to a decrease in number of bike messengers – the seminal alley cat racers – and the end of a robust courier culture (see Fincham, Kidder, and Wehr for more on bicycle messengers).

In the past, alley cat races were promoted by word of mouth primarily between bicycle messengers. But as bike messenger numbers dwindled alley cat races became smaller, less competitive (few recreational or utilitarian riders are up for the thrills and spills that alley cat races entail ... I still have a partially dislocated collar bone from one). This also makes the races easier for the police to preempt and identify "organizers", exposing them to a degree of liability unheard of in the past.

- https://www.transalt.org/sites/default/files/resources/blueprint/chapter14/chapter14c.html
- https://en.wikipedia.org/wiki/Bicycle_messenger#Demand_for_courier_services

¹⁴¹ Much has been written on Critical Mass, perhaps more so than any other bicycling event. However, my point her is to simply note that Critical Mass, like alley cat races and WNBR, encourage a countercultural sort of rider to ride, and is thus an instance of DIY activist staging. The discussion here is not meant to be a complete description of Critical Mass events.

¹⁴² "Corking" is a technique where lead riders approach an intersection, they move to the side of the roadway, and progressively come to a stop in a manner that blocks cross-street traffic from entering the intersection (even if they have the signal) while allowing the remaining ride participants to pass through (even against the signal). This allows the riders to stay together and is very similar to techniques used in sanctioned processions such as funerals and parades.

¹⁴⁰ For more on Chris Carlsson see http://www.chriscarlsson.com/

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¹⁴³ For example, one online announcement targeted at CU Boulder students described it as "a peaceful bike ride in the streets of Boulder, not as a rally against cars but rather a rally for bikes. It is to bring attention to bicyclists and promote safe sharing of the road. Traffic laws are not violated, helmets are encouraged, and everyone is invited! Meet on the last Friday of every month across from the Tea House in Central Park (13th St. between Arapahoe and Canyon) at 5:00PM." While such is all fine and well from an institutionalized perspective, many other Critical Mass participants would likely not consider it a "true" Critical Mass ride. Also see https://www.colorado.edu/StudentGroups/STS/criticalmass.html

¹⁴⁴ For tales of run ins with police leading to tickets, arrests, and impounded bikes

- http://www.westword.com/news/critical-mess-5089167 (May 4, 2006)
- http://www.westword.com/news/blog-cops-no-show-for-critical-mass-5829332 (Aug 2, 2006)
- https://www.denverpost.com/2008/08/27/denver-reaches-critical-mass/ (Aug 27, 2008)
- https://www.denverpost.com/2011/10/12/finally-denver-settles-over-mass-arrests-during-2008democratic-national-convention/ (Oct 12, 2011, May 2, 2016)

¹⁴⁵ For more on the 2008 DNC Critical Mass ride see

- https://www.denverpost.com/2008/08/27/denver-reaches-critical-mass/
- https://www.youtube.com/watch?v=xYP9egVotdU
- https://www.youtube.com/watch?v=mmFLQWT6TdM
- https://www.denverpost.com/2011/10/12/finally-denver-settles-over-mass-arrests-during-2008democratic-national-convention/ (from 2011, 2016 about law suits that result from police mass arrests)

For a similar account of the 2004 RNC Critical Mass ride, see Furness 2010: Ch1

¹⁴⁶ An anonymous participant described the decision to ride down the Mall as a mistake. For the first time back, he said "it didn't work so well. People get angry sometimes. We'll wait a few more rides before trying something that big again." http://www.westword.com/news/critical-mass-bike-ride-returns-to-denver-with-eight-tickets-impounded-bikes-5847477

¹⁴⁷ WNBR events are locally organized, using social media, wikis, and more traditional means such as flyers. Though WNBR bills itself as international campaign, there is little organizational infrastructure beyond a website and wiki to share ride locations and encourage and educate participants.

- http://worldnakedbikeride.org/
- http://wiki.worldnakedbikeride.org/index.php?title=Main_Page

¹⁴⁸ Source of quote:

http://wiki.worldnakedbikeride.org/index.php?title=Frequently_asked_questions#ls_it_legal_to_be_naked_in_public.3F

¹⁴⁹ Though obtaining permits is discouraged by the WNBR wiki (see below), in Boulder and Denver police have been observed escorting rides and stopping traffic to allow the group to proceed together through intersections, against traffic signals. Whether this service was prearranged, or the result of a tactical decision by the police is unconfirmed, but other observations suggest the it is the latter. These include police escorting the 2008 DNC Critical Mass ride, and the fact that they police have also been observed to suddenly stop escorting and begin ticketing/arresting WNBR participants as they did in Denver 2007.

• http://wiki.worldnakedbikeride.org/index.php?title=Frequently_asked_questions#Do_I_need_to_get_a_permit_to_ride_naked_on_the_streets_in_a_large_group.3F

How many Critical Mass groups seek permits to ride in the streets? Do car drivers get permits to cause traffic jams? Do you think you need permission to ride your bicycle with others? Isn't bicycle riding one of the most responsible and efficient ways to get around? Shouldn't local and national government be supporting people who encourage change for the better? Do you need a permit to swim naked at the beach or to sunbathe in the park? Think about it. Think about the implications of asking permission for your freedom, rather than granting yourself the right to live fully and completely. It's one thing to work with officials or other community groups to make sure the event happens in a successful way if you are using city resources or community space, but quite another to ask for permission to use the roads that you collectively own with other tax payers to go cycling in a responsible manner.

¹⁵⁰ More information on WNBRs in Boulder and Denver

- https://groups.yahoo.com/neo/groups/WNBRdenver/info
- https://www.youtube.com/watch?v=q2AN2VnTIU4
- http://www.westword.com/news/world-naked-bike-ride-denver-5847480
- https://myspace.com/worldnakedbikeride_denver
- http://www.westword.com/2007-06-14/news/naked-city/
- https://www.youtube.com/watch?v=q2AN2VnTIU4
- WNBR is still going strong elsewhere, Europe in particular
- https://www.forbes.com/sites/ceciliarodriguez/2017/06/04/world-naked-bike-ride-2017-nude-cyclists-ride-through-cities-to-protest-against-cars/#31864ecb35f9
- http://wiki.worldnakedbikeride.org/index.php?title=List_of_rides#West

¹⁵¹ Advice on compliance with indecent exposure laws from the WNBR wiki

http://wiki.worldnakedbikeride.org/index.php?title=Frequently_asked_questions#Will_I_get_arrest_ed.3F

¹⁵² For more on Denver Cruiser Ride (DCR) see

- http://denvercruiserride.com/
- http://www.bradkevans.com/media.html
- The Thursday Night Cruiser Ride (TNRC) is a weekly community bicycle ride in Boulder, Colorado.
 We ride at a one speed pace and wish everyone a "Happy Thursday!" For more information on the TNCR see https://www.facebook.com/HappyThursdayCruiserRide/

¹⁵³ For examples of Cruiser ride themes see:

- https://www.facebook.com/HappyThursdayCruiserRide/photos/a.501116136571956.133947.5008 84273261809/2086744558009098/?type=3&theater&hc_location=ufi
- http://denvercruiserride.com/2018-themes/
- http://denvercruiserride.com/2017-themes/
- http://denvercruiserride.com/home/2016-dcr-themes/
- http://www.westword.com/news/photos-denver-cruisers-hilarious-april-fools-theme-schedule-and-the-real-thing-5903113

¹⁵⁴ In my observations, many Cruisers openly consumed alcohol (and other drugs to lesser extent) before the ride, and at "dance parties" along the way, often in violation of open-container and public drinking laws, as well as prohibitions against "bicycling under the influence" ("BUI"). Many interview participants, and most who were directly asked, also mentioned their disapproval, and avoidance of Cruiser rides due to the illegal and debaucherous behavior of many participants.

• For more information on BUIs see http://colobikelaw.com/articles/dui.html

For corroboration of observations see

- http://www.westword.com/arts/reader-if-people-like-to-see-drunk-cyclists-cruisers-are-made-for-tv-5781034
- http://www.westword.com/news/denver-cruisers-to-be-featured-in-travel-channel-pilot-with-off-season-ride-5890024
- http://www.westword.com/news/denver-cruisers-solution-to-its-trash-problem-pick-up-your-garbage-5845931

¹⁵⁵ Corroboration of observations of illegal behavior, and efforts to stop it

- https://www.mydenverduilawyer.com/2012/11/23/biking-under-the-influence-no-longer-tolerated-in-denver-county/
- http://www.westword.com/news/drunk-biking-targeted-by-denver-advocates-worry-policy-could-encourage-drunk-driving-5909755
- http://www.dailycamera.com/ci 15472969

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¹⁵⁶ For more information on DCR efforts to stop illegal and unsafe behavior on rides, and response from City officials see

- http://denvercruiserride.com/how-we-roll/
- http://denver.cbslocal.com/2016/06/01/denver-police-bicyclists-law-denver-cruisers/
- http://www.westword.com/news/denver-cruiser-ride-launches-safety-campaign-tells-cyclists-to-follow-laws-5892053
- http://www.westword.com/news/denver-cruiser-ride-city-officially-proclaims-wednesdays-bike-night-in-denver-5873033

¹⁵⁷ Additional details on "How we Role"

- https://www.facebook.com/HappyThursdayCruiserRide/about/
- http://denvercruiserride.com/how-we-roll/

¹⁵⁸ Both Boulder's and Denver's most recent applications to the League of American Bicyclists' "Bicycle Friendly Communities" mention their respective Cruiser rides. More so, Denver declared Wednesdays "bike night", and both Boulder and CU Boulder now promoted Thursday Night Cruiser Riders. For more information see

- http://www.westword.com/news/denver-cruiser-ride-city-officially-proclaims-wednesdays-bike-night-in-denver-5873033
- https://www.colorado.edu/today/2016/05/24/10-things-do-summer

¹⁵⁹ For a list of current DCR sponsors and merchandise see:

- http://denvercruiserride.com/partners/s
- http://denvercruiserride.com/category/guidebook-2017/
- http://denvercruiserride.com/join-us/

¹⁶⁰ Source of quotes

- http://www.westword.com/news/denver-cruisers-to-replace-iconic-weekly-rides-with-monthlyevents-9026440
- http://www.ultra5280.com/lifestyle-1/2017/5/5/denver-cruisers-are-back

¹⁶¹ I define protests as direction action efforts taken in support of riders' rights and/or against automobility (not bicycling as a means of protesting something else). The Folsom St. protests (Boulder, Oct 1, 2015) is the only example of a non-Critical Mass or WNBR protests observed in the course of this project

- http://www.dailycamera.com/news/boulder/ci_28886183/supporters-folsom-protected-bike-lanes-plan-protest
- http://www.dailycamera.com/news/boulder/ci_28904433/boulder-cyclists-ride-mourn-bike-lane-reversal-folsom
- https://usa.streetsblog.org/2015/10/01/boulder-cyclists-ride-to-protest-bike-lane-removal/
- http://www.dailycamera.com/news/boulder/ci 28921785/boulder-begins-scaling-back-protected-bike-lanes-folsom
- http://www.dailycamera.com/news/boulder/ci 29117964/boulders-right-sizing-reversal-how-folsom-re-alignment
- http://www.westword.com/news/boulder-scraps-protected-bike-lanes-on-folsom-because-drivers-hate-them-7197463
- http://www.westword.com/news/boulder-cyclists-protest-end-of-folsom-protected-bike-lanesdrivers-strike-back-7203241
- https://www.bicycling.com/news/a20037257/human-protected-bike-lane-philadelphia/
- https://archives.sfweekly.com/thesnitch/2015/07/30/this-is-what-happened-when-bicyclists-obeyed-traffic-laws-along-the-wiggle-yesterday

¹⁶² The most popular call and response chant that I observed was a whitewashed version of "whose streets?" "Our streets!" … "What do we want? Safe streets! When do want them? Yesterday!"

¹⁶³ That is, volunteer led (maybe one employee), member supported. Not officially registered as 501(c) organization.

The aforementioned DIY-oriented CBOs, Derailer Bicycle Collective, The Bike Pit, and Bike Depot closed in large part due to the redevelopment and gentrification of the neighborhoods in which they were located (Lincoln Park and North Park Hill). As the neighborhoods redeveloped, rents increased, in particular for the warehouse and light-industrial space CBOs need for their shops and storage, in large part due to increased demand from legal cannabis cultivation, which must be conducted indoors in Boulder and Denver. In the end, rent simply became too much for the small, member-supported CBOs. More so, since they were led by unpaid volunteers, and not officially registered as 501(c) organizations, these DIY-oriented CBOs did not receive, and in ways did not want, the support of municipal officials, or the sponsorship of the bike biz. In the end, what mayor or CEO is going to support a program receiving cease-and-desist orders from City officials, or give money to a group under investigation by the FBI for terrorism?

More so, the fate of the Denver DIY-oriented CBOs is an ironic juxtaposition of the typical framing of the bicycling-gentrification relationship. Rather than bike lanes and riders being harbingers (if not "the causes") of gentrification, it is the gentrification of the Lincoln Park and North Park Hill neighborhoods that is believed to be the cause of the DIY-oriented CBOs closing.

Additional sources of information include

- http://bikestogether.org/bike-depot/
- http://www.derailerbicyclecollective.org/
- http://w.bikecollectives.org/index.php?title=Derailer Bicycle Collective
- https://recreation-law.com/2012/10/12/denver-derailer-bicycle-collective-is-closing-its-doors/
- http://www.westword.com/news/cycle-killer-5089940

¹⁶⁵ I also suspect that the abrupt departure of then-director Rich Points in 2008, and professional bicycling advocate Sue Prant taking over marked a turning point for Community Cycles – from a DIY-oriented to a City sanctioned and business sponsored CBO. Unfortunately, my efforts to confirm this suspicion have been unsuccessful. And regardless of whether such is true or not, Community Cycles fits the professionalization trend well. Going from a single volunteer in 2005 to a million-dollar budget 2015, Community Cycles has changed a lot in 10 years! For more information on Community Cycles see

- https://communitycycles.org/our-history/
- https://projects.propublica.org/nonprofits/organizations/61719094

¹⁶⁶ This only meant to apply to Boulder and Denver, I know DIY bicycling activist are still going strong in other communities around the U.S. and in other parts of the world

¹⁶⁷ Comments in response to Daily Camera article covering the Folsom Street protest best illustrate this claim:

- Sorry hipsters, you can't twitter and tweet your way out of reality. Save your funeral black for an actual funeral, grow up and accept the fact that most people cannot use their bicycles as a primary mode of transportation.
- Yes, you are selfish. One of your brethern [sic] commented above about the tiny minority of people that don't drive. Well Jane, why should the majority of people of Boulder move heaven and earth to accommodate such a tiny fearful minority of people? If you were too afraid of riding your bikes in the road before, you have no business riding up next to multi-ton vehicles.
- Ridiculous. Now that the experiment has stopped a bunch of people that did NOT previously use
 the Folsom bike lanes show up to protest. When I drove the Folsom 'right sizing' stretch for the first
 time last week I saw about half a dozen cyclists total. And a line of cars stretching into the distance.
 Boulder is and was a great cycling town before this experiment. We're not going back in time. We're
 going back to common sense.

Sources of quotes:

- http://www.dailycamera.com/news/boulder/ci 28904433/boulder-cyclists-ride-mourn-bike-lane-reversal-folsom
- http://www.westword.com/news/boulder-scraps-protected-bike-lanes-on-folsom-because-drivers-hate-them-7197463
- http://www.westword.com/news/boulder-cyclists-protest-end-of-folsom-protected-bike-lanes-drivers-strike-back-7203241

¹⁶⁸ For more on radical flank effect see https://en.wikipedia.org/wiki/Radical flank effect Additional examples of the argument include

- https://bikeportland.org/2009/02/15/movie-trailer-what-happened-to-critical-mass-in-portland-14725
- https://vimeo.com/145546824
- https://bikeportland.org/2008/01/25/remember-critical-mass-6463

¹⁶⁹ Furness (2010:100-103) explains that not only do probable conflicts with drivers and police keep many potential Critical Mass participants at home, confrontational activism is enabled by white privilege given the mobility constrains non-white people face (BWB), and the discrimination of the criminal justice system.

 170 The media plays a large role in this as well ... see Furness 2010: Ch 5 ... I also need to write a chapter on narratives, discourses, archetypes... images "out there"

¹⁷¹ Or worse. A recent study out of the UK found that 70% of urban riders experienced a degree of paranoia, believing that drivers intended to harm them. For more see

- https://www.psy-journal.com/article/S0165-1781(17)31109-5/fulltext
- https://www.theguardian.com/environment/bike-blog/2018/may/11/theyre-out-to-get-you-study-finds-cyclists-face-paranoia-about-drivers

¹⁷² That is, get more and different, people on bikes, more frequently, and more safely, in ways that do not duplicate institutionalized efforts. Work toward the same goal, using different means.

¹⁷³ Which in DIY activist fashion, are enforced through informal social control, rather than organizational policy. For example, see:

- http://denvercruiserride.com/how-we-roll/
- https://www.facebook.com/pg/HappyThursdayCruiserRide/posts/?ref=page internal

Of course, posting rules of behavior and asking everyone to enforce them diminishes this, and is consistent with the institutionalization of Cruiser rides

¹⁷⁴ Searches for "keep Boulder/Denver weird" both turn up websites that feature bicycling events discussed here. For example, http://www.keepboulderweird.org/

¹⁷⁵ AKA "Courteous Mass", "Critical Manners", etc. https://en.wikipedia.org/wiki/Critical Mass (cycling)#Critical Manners

- I don't believe a CM has to adhere to the letter of the law, it is after all a protest. I think that the following behaviors are OK:
- "Taking the lane", the entire lane, even though CO law limits riding to 2 abreast, unless it impedes traffic and then the law calls for riding single file, as far to right as safe.
- Corking to move quickly and safely through intersections while keeping the Mass together. Again, it is a protest, not simply a large group of people riding together. The corking could also be done by police officers on bicycles, as they did for the 2008 DNC Critical Mass.
- Of course, police escorts might diminish the "countercultural vibe" that is at the heart of DIY activist staging (as suggested by the conversations of 2008 DNC Critical Mass participants). Thus, ironically tolerance and decriminalization might be a more effective approach by municipal officials.

¹⁷⁶ That is, a WNBR that finds critical and creative ways to adhere to the bare minimum of public nudity laws (pun intended)

¹⁷⁷ Insomuch as the regular meet up spot for the Boulder and Denver Cruiser rides, it is very common for participants to have a drink or two before the ride. The vast majority of the time, even with a beer to two in them, Cruisers ride in a safe and non-confrontational manner.

¹⁷⁸ For examples for-profit neighborhood bike shops see:

- https://www.chocolatespokes.com/
- https://www.ltdcycleworx.com/

As noted, the DIY-oriented CBOs have closed, but CBOs, Community Cycles and Bikes Together still provide free or low-cost bicycling services such as recycling bicycles and parts, spaces to learn and fix bikes, and "earn-a-bike" programs.

- https://communitycycles.org/what-we-do/bike-repair-workshops/
- http://bikestogether.org/programs/fix-your-bike/
- http://bikestogether.org/earn a bike/
- ¹⁷⁹ Such as BikeDenver, the LAB (Furness 2010:159), riders targeted by Bicycling Magazine which is coincidently produced in Boulder.
- ¹⁸⁰ That is, let the pros handle the mainstream advocacy. As one critic of the Folsom Street protests said, "Boulder is saturated with bike lanes already". Compared to most U.S. cities, this is true, and it is noticed by the anti-bicycling types. Instead, of infrastructure, the best focus of protest (DIY activist staging) is transportation justice/equity, and safety for all (VZ idea) Source of quote: http://www.westword.com/news/boulder-cyclists-protest-end-of-folsom-protected-bike-lanes-drivers-strike-back-7203241
- ¹⁸¹ Sometimes this cooperation takes the form of friendly competition. For example, DRCOG sponsors competition between large employers and communities to register the most Bike to Work Day participants.
- ¹⁸² These reports made only vague efforts to quantify the share of people in each group. One suggested that there were as many as 100 million people that own bicycles in the United States, but perhaps only 5% could be classified in the advanced category (2), while the other simply stated that "some" adults fall into the advanced category, but "most" fall into the basic category. These typologies categorized existing bicycle users based on their skill level but did not seek to categorize cyclists based on their purpose (e.g. recreation, transportation, etc.). Further, they encouraged catering to "basic" users, but did not explicitly consider those who are not currently bicycle users. (Dill and McNeil 2013)
- ¹⁸³ A now famous cyclists typology has been developed for the city of Portland (Geller, 2006) and has been analyzed recently in another study (Dill & McNeil, 2013, Dill & McNeil 2016). The typology divides the entire commuting population into four types: (1) No way no how, (2) Interested but concerned, (3) Enthused and confident, and (4) Strong and fearless. The typology divided commuters based primarily on their level of comfort cycling on different infrastructure and street types. Dill and McNeil (2013) tested the typology with the Portland population. Their research shows that it is possible to base bicycle infrastructure recommendations on this kind of exercise, but also shows several limitations to Geller's typology. First, no other type of potential interventions can be recommended using this typology besides bicycle paths, since the typology is based on the comfort of using different infrastructure. Second, the analysis from the survey used in their study gave some strange results when trying to apply the typology. For example, 34% of the Strong and Fearless end up being classified as non-cyclists, compared to only 23% and 28% for Enthused and confident and Interested but concerned, respectively. Also, 10% of the Interested but concerned group cycle 20-31 days in winter months compared to 0% of the Strong and fearless group. Planners have used this typology to justify interventions by saying that the interested and concerned should be convinced to cycle more, but Dill and McNeil's study (2013) indicates that this group do cycle more than the Strong and fearless. This issue might have arisen because the boxes into which cyclists are supposed to fit have been developed subjectively rather than on an empirical basis: "These numbers, when originally assigned, were not based upon any survey or polling data, or on any study. Rather, they were developed based on the professional experience of one bicycle planner" (Geller, 2006). Such a typology could be refined by increasing the number of factors defining the cyclists and not limiting the study to a predefined framework to allow recommendations on different types of interventions and by building the boxes into which cyclists would fall based on empirical methods rather than a subjective one. (Damant-Sirois et al, 2014) ¹⁸⁴ Proportions of research participants that fell into each category:
 - Discontented Drivers 35%
 - Complacent Car Addicts 26%
 - No Hopers 19%
 - Aspiring Environmentalists 18%

- Car-Less Crusaders 4%
- Reluctant Riders 3%

¹⁸⁵ Their new study generates a multidimensional cyclist typology based on seven factors derived from 35 variables, mostly proven determinants of the intensity of bicycle usage. The analysis revealed four distinct cyclist types:

- dedicated cyclists,
- path-using cyclists,
- fairweather utilitarians, and
- leisure cyclists.

The cycling frequencies of each group respond differently to potential interventions and vary within commuting rate ranges with apparent minima and maxima. Authors believe the findings will help guide urban planners, transportation engineers and policy makers as they remake cities to respond to new transit demands.

¹⁸⁶ Based around fieldwork in Seville (Spain), the article provides an empirical analysis with the aim of determining whether different typologies of cyclists exist depending on the type of bicycle for urban commuting (public, or shared, bicycle vs. private bicycle). Findings show that users of public bicycles are predominantly male, young, with a high level of education, and basically use the public bicycle for subsistence trips due to its easy intermodality; while private bicycle riders are mainly females who regularly make nonsubsistence trips and prefer a more flexible bicycle for their daily needs.

¹⁸⁷ Theory of Planned Behavior includes such variables and is very popular among transportation and bicycling planners, advocates, and scholars

- Ajzen, Icek 1991. "The Theory of Planned Behavior". *Organizational Behavior and Human Decision Processes*. 50 (2): 179–211. doi:10.1016/0749-5978(91)90020-T.
- Ajzen, Icek. (1985). From Intentions to Actions: A Theory of Planned Behavior. In J. Kuhl & J. Beckmann (Eds.), *Action Control: From Cognition to Behavior*. Berlin, Heidelber, New York: Springer-Verlag. (pp. 11-39).
- Fishbein, Martin. & Ajzen, Icek. 1975. Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.

¹⁸⁸ Davies et al. (1997) analysis suggests that for promotional purposes the population should be categorized as (in order of cycling frequency): 3.2.3 Types of Cyclist: Although virtually all types of people cycle, five 'types' of cyclists were identified, on the basis of respondents' images and experiences. These are

- practical cyclists,
- idealist cyclists,
- fair-weather cyclists,
- lifestyle cyclists and
- mainstay cyclists

¹⁸⁹ Davies et al. (2001) identify 9 different social groups with different degrees of sympathy towards cycling and highlights how likely and in what circumstances the different groups are to be amenable to cycling.

- Cycles most weeks
 - o committed cyclists
 - regular cyclists
 - Cycles about once per month
 - occasional cyclists
 - toe-dippers
- Cvcles verv rarely or not at all
 - o the unthinking
 - the self-conscious
 - the unconvinced
 - o no-needers

youngish lads

¹⁹⁰ In a 2010 study for London's Department for Transportation, Christmas et al discuss the difficulty in segmenting the cycling population, concluding that the method must depend upon the intended purpose. For their purpose of road safety, the authors suggested including all or some of five variables: age, gender, motivation for cycling, cycling patterns, and cycling approaches. While they did not develop a typology, they noted significant diversity within the population cycling for utility (versus for leisure) and the likelihood that individuals may belong to more than one group

¹⁹¹ Ideal types are most closely associated with sociologist Max Weber. For Weber, the conduct of social science depends on the construction of abstract, hypothetical concepts. The ideal type is therefore a subjective element in social theory and research, and one of the subjective elements distinguishing sociology from natural science.

An ideal type is formed from characteristics and elements of the given phenomena, but it is not meant to correspond to all of the characteristics of any one particular case. It is not meant to refer to perfect things, moral ideals nor to statistical averages but rather to stress certain elements common to most cases of the given phenomenon ... these ideal types are idea-constructs that help put the seeming chaos of social reality in order.

Weber himself wrote: "An ideal type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those onesidedly emphasized viewpoints into a unified analytical construct..." Max Weber (1949) "'Objectivity' in Social Science and Social Policy", in Max Weber, The Methodology of the Social Sciences New York, NY: The Free Press p.72. Also see Ross 2001 Law as Social Institution p.33-34 for a super explanation of ideal type.

¹⁹² For additional clarity, I capitalize terms when I am referring to the conceptual / ideal type. I use lower case for writing about real individuals or groups of individuals

¹⁹³ I say "stereotypical" here because I am referring to perceptions of Bicyclists as portrayed in the news and entertainment media, as well as in official and casual discourse. Rather, research on the matter, especially that which is sensitive to hard-to-observe groups of PWRB, finds that many, actually most, Bicyclists do not fit this sociodemographic profile (references below). More importantly, the "unbearable whiteness of bicycling" is more about the perception than the actual statistics, and people of color that are Bicyclists are even further marginalized because of the essentializing implications of the idea.

- https://books.google.com/books?id=twjLtAEACAAJ
- https://b.3cdn.net/bikes/60e4ef1291e083cada_8ym6ip7pw.pdf (Building Equity, PfB report)
- http://peopleforbikes.org/our-work/statistics/statistics-category/?cat=participation-statistics#demographics
- https://grist.org/biking/2011-04-06-race-class-and-the-demographics-of-cycling/
- http://theconversation.com/the-unbearable-whiteness-of-cycling-76256
- https://theconversation.com/bike-friendly-cities-should-be-designed-for-everyone-not-just-for-wealthy-white-cyclists-109485
- https://usa.streetsblog.org/2014/07/29/african-american-cyclists-and-others-weigh-in-on-race-and-biking/
- https://peopleforbikes.org/blog/race-ethnicity-class-and-protected-bike-lanes-an-idea-book-for-fairer-cities/
- https://www.citylab.com/transportation/2015/10/the-poor-bike-the-rich-bike-share/413119/
- http://www.urbanadonia.com/2015/09/unsolicited-advice-for-vision-zero.html
- http://www.spokemag.co/its-time-for-cycling-advocates-to-stop-ignoring-people-of-color/

¹⁹⁴ It is also possible that a poor, carless individual will enthusiastically ride a bike. But by definition, they would no longer be a Reluctant Rider.

¹⁹⁵ As opposed to having a bike stolen from a bike rack, porch, or garage, which would be burglary or larceny, and considered non-violent property crime.

¹⁹⁶ All other things being equal, the more successful at given goals and plan, the more enthusiastic a rider is considered to be.

¹⁹⁷ I don't entirely like this agentic framing because this is very often about privilege.

- Class: ability to live in safe place, (relatively near) work, accommodating job (often professional, not manual), ability to afford efficient bike and place to store it. The gentrification of downtowns and urban neighborhoods and / the suburbanization of poverty works against the poor riding
- Race/gender: white men tend to experience much less harassment from police and ORUs (BwB, cat calls and worse)
- · Ability: healthy enough to ride

¹⁹⁸ I would add that along with (1) people, (2) places and (3) trips given a purpose can be said to be "cardependent", and thus measured as such. While most research has been rightfully focused on cardependency, my research suggest that people can also be considered "dependent" on other modes of everyday mobility, bicycling included.

¹⁹⁹ Utilitarian bicycling / riding is also commonly referred to "utility" or "transport" cycling, whereas recreational bicycling / riding is (all but) universally referred to as such.

²⁰⁰ As I see it, people can use cars to transport their bodies and belongings in several ways:

- (1) Drive self in owned car (requires a valid driver's license to do legally)
- (2) Drive self in rented, shared, or borrowed car (also requires a DL)
- (3) Pay to be driven in a private car (taxi, limo, Uber, Lyft, etc.)
- (4) Plan to be driven in the car of a family, friend, or other associate (kids, carpool with colleague, etc.)
- (5) Be driven unplanned and for free in the car of a family, friend, or ORU ("bum a ride", hitchhike, etc.) I have listed the uses here in descending order of cost and reliability, and thus the extent to which cars provide "autonomous mobility". Driving one's self in stolen car is the similar to driving an owned car (#1), but was not observed in the course of research, and not discussed here.

²⁰¹ Driving can be recreational, such as trips taken by "Sunday drivers", races, "cruising the strip", etc. However, according to the National Household Travel Survey (2017) less than 10% of all trips made by car are considered "recreational" which includes driving to a site of recreation, and not the drive itself. This means the actual number of trips take by car for the intrinsic enjoyment of the drive itself is even lower.

- https://nhts.ornl.gov/vehicle-trips
- https://nhts.ornl.gov/assets/codebook_v1.1.pdf
- https://nhts.ornl.gov/2009/pub/TRIPPURP%20FAQ.pdf

²⁰² Though terms car-free, car-lite, and car-less are common in discussions of alternatives to driving, there is no widely agreed on definition, and meanings vary considerably between transportation scholars, planners, and advocates, as well as, in everyday discourse. Most often, the term car-free is used to describe people who simply do not *own* a car. However, I established much stricter criteria in advance of my data collection efforts to ensure that I could accommodate a full range of everyday embodied mobility practices and come to a more sophisticated understanding of car use. Thus here, I consider a person completely car-free if they ...

- (1) do not have a driver's license, and thus cannot legally drive a car (and thus renting, sharing, or borrowing a car is not possible either); and they
- (2) do not regularly pay for rides by car such as taxi or ridesharing (e.g. Uber or Lyft), or participate in pre-arranged, reoccurring carpools; and
- (3) they do so voluntarily.

Car-lite people do not meet one or more of the car-free criteria, but reflexively eschew car use for some trips – the more they do so, the more "car-lite" they are.

Like car-free people, car-less individuals do not have a valid driver's license, and do not have access to cars without resorting to expensive, dangerous, or illegal tactics. But unlike car-free folks, car-less people do not drive involuntarily, most often due to poverty, disability / age, or being legally prohibited from driving.

Most of the people I observed were car-lite, none were completely car-free (according to my criteria), and about half dozen were car-less.

Despite a concerted recruitment effort, I was unable to directly observe or interview any completely car-free riders due in part to the criteria I established. I did however, observe several highly enthusiastic car-lite Bicyclists.

203 Mode share statistics vary considerably due to many operationalization and measurement options, and thus it is difficult to compare specific values from place to place and time to time. Thus, these comments represent my summary of several indicators from several sources, the most important listed below Boulder:

- https://www-static.bouldercolorado.gov/docs/Modal_Shift_1990-2015_Report_2016-05-27-1-201708041213.pdf?_ga=2.172344929.316273177.1547295199-189246148.1541209711 (Pp.2-3, p.28)
- https://www-static.bouldercolorado.gov/docs/2018_Report_on_Progress_Draft_16-1-201802011349.pdf?_ga=2.170729954.316273177.1547295199-189246148.1541209711

Denver:

https://www.denvergov.org/content/denvergov/en/bicycling-in-denver/planning/denver-moves-reports.html

National:

• https://www.bts.dot.gov/content/commute-mode-share-2015

²⁰⁴ Estimate based on interviews in which enough information was obtained to make calculations, and then generalized to all high-enthusiasm Bicyclists.

²⁰⁵ E-bikes, also known as electric bicycles, power bikes, pedelecs, or booster bikes, are bicycles with an integrated electric motor that does not exceed 750 watts of power.

- (1) Class 1 e-bikes are "pedal assist", motor only assists when pedaling. Top speed 20mph
- (2) Class 2 e-bikes are "throttle assist", motor is engaged by throttle, basically making it a mini electric motor cycle. Top speed 20mph
- (3) Class 3 e-bikes are the same as Class 1 but with higher top speed. Top speed 28mph
- https://www.montaguebikes.com/folding-bikes-blog/2018/03/electric-bicycle-types-explained/
- https://www.bikelaw.com/2017/08/colorado-electric-bicycle-laws/
- https://www.bouldercountv.org/open-space/management/e-bikes/

²⁰⁶ The City of Boulder, Boulder County, and Colorado State law makes explicit provisions for e-bikes

- https://bouldercolorado.gov/goboulder/electric-assisted-bikes-policy-review
- https://www.bouldercounty.org/open-space/management/e-bikes/
- https://www.bikelaw.com/2017/08/colorado-electric-bicycle-laws/
- https://www.denverpost.com/2018/01/01/should-e-bikes-be-allowed-in-colorado-communities-in-most-cases-ves/

207 In Boulder and Denver, mass transit is limited to buses and surface trains, no ferries or subways. From a transit-centric perspective, bikes make a super solution to the "first / last mile" problem that stymies many would be passengers (McLeod 2014).

208 Super commuters are individuals whose commute is greater than two hours / 100 miles (round trip) Stutzer and Frey (2008) Stress that Doesn't Pay: The Commuting Paradox

209 The implications of this observation are not clear at this point and deserves further research. The reason for the observation maybe coincidence and small sample size, or perhaps bicycling Advocates and Activists are psychologically different, or are impacted differentially by sociocultural forces, or both

²¹⁰ Shared transportation facilities are routinely rated by transportation planners and bicycling advocates on a "Level of Traffic Stress" (LTS) scale. There are four levels, and facilities with rating of LTS1 or LTS2 are generally considered to "low stress" facilities, while LTS3 and LTS4 are said to be "high stress".

270

 Low-Stress Bicycling and Network Connectivity. Research report 11-19, Mineta Transportation Institute, 2012.

- Furth, P.G., M.C. Mekuria and H. Nixon. Network Connectivity for Low-Stress Bicycling. Transportation Research Record 2587, pp. 41–49.
- http://www.northeastern.edu/peter.furth/about/
- https://bna.peopleforbikes.org/#/methodology

²¹¹ Here I use the term bike lane to summarize all on-road bicycling facilities including buffered bike lanes, contraflow lanes, and cycle-tracks. While bike lanes reduce the level of stress / car dominance they done completely eliminate it for most people due to the close proximity to fast moving cars, frequent interaction with car traffic at intersections, as well as real and potential encroachment by car drivers.

²¹² As in traffic calming ...

- https://safety.fhwa.dot.gov/ped_bike/univcourse/pdf/swless11.pdf
- https://www.transportation.gov/mission/health/Traffic-Calming-to-Slow-Vehicle-Speeds

²¹³ And to a lesser extent streets and off-road bicycling facilities. Streets and dedicated off-road bicycling facilities have their own sets of formal and informal rules. The same set of laws govern both roads and streets, as well as intersections with off-road bicycling facilities, but expectations are not the same, and informal norms are very different

²¹⁴ There are six exceptions specified in CRS 42-4-1412: "Operation of bicycles and other human-powered vehicles" states: Every person riding a bicycle shall have all of the rights and duties applicable to the driver of any other vehicle under this article, except as to special regulations in this article and except as to those provisions which by their nature can have no application."

• https://www.codot.gov/programs/bikeped/information-for-bicyclists/bike-ped-manual/2008-10-official-bicycling-laws.pdf

²¹⁵ Informal roadway norms: based on review of literature and my own research, see for example:

(1) Roads are for cars (trucks, buses, etc.): This norm says that bicycling is good, right, and beautiful so long as it happens on a trail, pathway, or anywhere that does not "impede traffic" (but "we are traffic!"). If a rider does dare to venture onto the road, they better keep up or stay out of the way. And at the same time, they should strictly adhere to the letter of the (vehicular cycling) law, and FOR SURE not gain any advantage over drivers by filtering, disregarding signs and signals, or otherwise exploiting their inherit difference from cars ... because car drivers never do that (snark!). If riders chose to use the roadway, they too should have licenses, registration, and pay taxes.

Norms 2 and 3 are corollaries of Norm 1

- (2) <u>Might makes right</u> (a corollary norm) In cases of conflict, collisions in particular, between drivers and riders, the "might makes right" norm says that because roads are for cars, the driver, (even though they will, in all but the most extraordinary cases, suffer less) is the legitimate roadway user, and riders are "brave", or worse "reckless", interlopers. It's the road, and accidents will happen when you chose to engage in such an inherently dangerous activity just like skiing, mountain climbing, and white-water rafting.
- (3) Riders are rude, reckless, and scofflaw roadway users (a corollary norm): selective observation, justifies and excuses aggressive and indifferent driving, and the victim blaming inherent in Might Makes Right norm

Even Forster agrees with the general premise: "The cyclist who rides in traffic will either slow the cars, which is Sin, or, if the cars don't choose to slow down, will be crushed, which is Death, and the Wages of Sin is Death."

²¹⁶ In Effective Cycling, Forester introduced what he calls "the five basic principles of cycling in traffic". Forester asserts that "If you obey these five principles, you can cycle in many places you want to go with a low probability of creating traffic conflicts. You won't do everything in the best possible way, and you won't yet know how to get yourself out of troubles that other drivers may cause, but you will still do much better than the average American bicyclist." [Forester (1993), p.246]

(1) Ride on the road, with the direction of traffic.

- (2) Yield to crossing traffic at junctions with larger roads.
- (3) Yield to traffic in any lane you are moving to, or when you are moving laterally on the road.
- (4) Position yourself appropriately at junctions when turning near the curb when turning off the road on the side you are travelling on, near the centerline when turning across the other side of the road, and in the center when continuing straight on.
- (5) Ride in a part of the road appropriate to your speed; typically, faster traffic is near the centerline.
- ²¹⁷ Vehicular cycling techniques have been adopted by the League of American Bicyclists and other organizations (AASHTO) teaching safe riding courses for cyclists. As a method for strong and confident riders to cope with fast motor traffic, many recommendations of vehicular cycling are widely accepted. ... led the engineering establishment down this path and "delayed the development of urban bicycle transportation networks in North America for decades"
 - Angie Schmitt (2018) A Brief History of How American Transportation Engineers Resisted Bike Lanes https://usa.streetsblog.org/2018/03/02/a-brief-history-of-how-american-transportation-engineers-resisted-bike-lanes/
 - William Schultheiss, Rebecca Sanders, and Jennifer Toole (2018) A Historical Perspective on the AASHTO Guide for the Development of Bicycle Facilities and the Impact of the Vehicular Cycling Movement https://trid.trb.org/view/1497052

Also see ...

- https://www.nytimes.com/roomfordebate/2013/10/21/cyclists-drivers-and-the-rules-of-the-road/in-copenhagen-cyclists-are-separate-but-more-than-equal
- https://www.nytimes.com/roomfordebate/2013/10/21/cyclists-drivers-and-the-rules-of-the-road/different-spokes-for-different-folks
- ²¹⁸ A claim that is debated (Carlsson 2007:87; Furness 201072-73; Mapes 2009; Pucher 2001).
- ²¹⁹ Unless otherwise noted, the term "bike lanes" refers to lanes restricted to bicycling that run along the right side (outside) of the road and that are separated from other traffic lanes by nothing more than paint. These simple bike lanes are the most common bicycling facility in most U.S. communities. Additional treatments such placing bollards, parked cars, a curb, or other protective objects such as large planters between car lanes and bikes lanes dramatically changes the situation, especially from the rider's perspective, and are not considered simple bike lanes, but rather buffered bike lanes, or cycle tracks, terms I will use to specify these sorts of bicycling facilities.
- ²²⁰ Lane sharing, or "splitting" is also a controversial practice in which two vehicles occupy a single lane side-by-side
 - http://www.leg.state.co.us/clics/clics2016a/csl.nsf/fsbillcont2/4C1D4A48B7B8053A87257F240063
 F690?Open
 - https://en.wikipedia.org/wiki/Lane splitting
 - https://en.wikipedia.org/wiki/Lane_sharing
 - https://en.wikipedia.org/wiki/Vehicular cycling#Lane sharing
- ²²¹ This is in large part because Boulder and Denver bicycling facilities are relatively well developed and frequently afford riders a safe and convenient alternative to the road (see Ch 4 for specific examples), but also due informal roadway norms that say bicycles should use available facilities ... that is "stay the hell out of the road!"
- ²²² More so, Boulder and Denver advocates are very professional and progressive and do not ascribe to Forster's prohibition on dedicated on-road bicycling facilities. Rather it is just the opposite and both communities strive to build (though not enough) as many dedicated bicycling facilities as their budgets and opposition allow.
- ²²³ And presumably practicing when not working, though I suspect imperfectly because very few PWRB strictly adhere to the principles of vehicular cycling.

- ²²⁴ Three prominent conflicts Reluctant, Simple, and Rec Riders experience:
 - (1) Practically everyone has to cross the road (they're everywhere!). Crosswalks are common sights of conflict between riders, pedestrians, and drivers.
 - (2) Cyclists on narrow rural, usually canyon, roads
 - (3) Though my focus here has been on roadway rider-driver conflicts, off-road rider-pedestrian conflicts on both urban MUPs, and rural "single-track" trails, is an important topic but beyond the scope of this dissertation.
- 225 https://cityratings.peopleforbikes.org/, and https://csus.libguides.com/c.php?q=768251&p=5510963
- ²²⁶ Officials suggest bike riders should dismount at crosswalks http://www.dailycamera.com/ci 14688659
- ²²⁷ However, unlike urban riders, the issue is not about stop signs and sidewalks. Rather the conflict is over roadway space and the ability to pass easily Specific situations observed:
 - Left-hand Canyon
 - Lee Hill Road
 - Deer Creek Canyon
 - https://www.bouldercounty.org/transportation/multi-modal/bikes/safe-cycling/
 - o http://www.timescall.com/ci_21609256/boulder-county-is-home-long-dispute-between-cyclists
 - o https://www.boulderweekly.com/news/crash-course/
 - o https://www.westword.com/news/alleged-bike-rage-incident-pits-byron-nix-against-herbert-hoovers-grandson-5890842
 - o https://www.westword.com/news/bike-rage-attacks-in-deer-creek-canyon-the-search-for-possible-bicycle-haters-in-jeffco-5891081
 - https://www.westword.com/news/christopher-loven-driver-in-eugene-howrey-bike-crash-convicted-in-2009-bicycle-rage-case-5898417
 - o https://www.denverpost.com/2013/06/05/tension-mounts-as-881-cyclists-1412-motorists-share-deer-creek-canyon/
- ²²⁸ Potentially all of them ...
 - The Law
 - Vehicular Cycling
 - Informal norms
- ²²⁹ Practices 1 and 2 are arguably safer and definitely more efficient, behaviors that "Idaho stop laws" legalize ... C.R.S § 42-4-1412.5
 - https://leg.colorado.gov/bills/sb17-093
 - https://leg.colorado.gov/bills/sb18-144
 - http://www.hottmanlawoffice.com/blog/2018/5/28/sb144

Permission to ride on sidewalks varies widely by neighborhood and municipality, as well as by the rider's age and other aspects of practice including speed. This makes the laws governing such difficult to adhere to. Other violations mentioned included

- riding without a helmet (not illegal for adults in CO)
- riding after dark without lights
- and riding too fast on multiuse paths (speed limit in Boulder is 15 mph

Other articles on these and other common violations include S. Thompson (2015), M. Johnson et al. (2011, 2013)

- ²³⁰ Where bikes are permitted on sidewalks in Denver and Boulder ... many people find it confusing
 - https://www.denvergov.org/content/denvergov/en/bicycling-in-denver/bike-safety/rules-of-the-road.html
 - https://bouldercolorado.gov/goboulder/bike-safety
 - https://www-static.bouldercolorado.gov/docs/biking-skatebaording-zoning-map-1-201304091342.pdf?_ga=2.9637308.861972268.1538539062-282592189.1501719966

- https://www.reddit.com/r/boulder/comments/5iicxk/boulders complicated bike rules/
- ²³¹ It is doubly ironic that riders retreat to sidewalks when the road is unsafe or inhospitable, because riders entering the roadway from sidewalks is the #1 ride-induced cause of collisions, even more so than running lights and signs caused. However, in many of these cases the rider is not an enthusiastic Bicyclist, but rather a Simple Rider, riders under 15 in particular. The #1 reason overall is motorist failure to yield ROW ~ Denver Moves Bicycle Crash Analysis 2016
- ²³² More so, among these riders, the propensity to violate the rules of the road seems to increase with enthusiasm for bicycling. However, given a relatively small and non-random sample of Bicyclists, this interesting finding is in need of further study, and potential topic of future research
- ²³³ These four accounts were observed in the course of research for this dissertation. However, there are others found in the media and discourse more generally. See Johnson 2011
- ²³⁴ Though I focus on accounts here, there is some scientific evidence to suggest riders' accounts are indeed "true". In places where "Idaho stop" laws that legalize the red light and stop sign maneuvers described have been legalized, including the eponymous state of Idaho and closer to home in Aspen and Summit County CO, rates of collisions, injuries, and deaths have decreased or remained constant after legalizing the riding practices.
 - Meggs (2010)
 - Leth, Frey, and Brezina (2014)
 - Tekle (2017)
- ²³⁵ The discussion was not audio recorded. The dialogue comes from my recollection of the discussion. And while I may not have the exact words, I am confident of the sentiment since I created the fieldnote within minutes of parting way with the rider.
- Hurst 2014 says no faster than walking, and the City of Boulder says 8 mph https://bouldercolorado.gov/transportation/safe-streets-heads-up-campaign
- ²³⁷ This really is an unfortunate situation, because though sidewalk riding may make riders feel more comfortable, it is actually (statistically) one of the most dangerous ways of riding, especially when the sidewalk runs parallel to, or intersects, a busy roadway ironically just where riders are mostly likely to retreat to sidewalks. ~ *Denver Moves Bicycle Crash Analysis 2016*
- ²³⁸ In particular, those that most endanger and disadvantage riders. Three feet passing laws, bicycle priority signals, and "safety stop" laws are examples of efforts to institutionalize riders' observed practices. The ultimate change are "Idaho stop" type laws that legalizes what riders already judiciously practice: slow rollin' through stop signs and treating red lights like stop signs. (C.R.S § 42-4-1412.5)
- ²³⁹ Though their efforts bring scorn from officials and ORUs, including many everyday Bicyclists ("they give us all a bad name!"), Critical Mass and WNBR participants believe they were helping other PWRB by drawing attention to the needs of PWRB. Whether this "radical flank" tactic (see Ch 4 and Furness 2010:100) actually works is beside the point in the context of accounts.
- ²⁴⁰ Based on conversations with and between pedicab drivers, tips are the most important, if not sole, source of money they earn ... the most commonly recommended payment that I observed is \$2 per block ... "or whatever you feel is fair when we get there. But you're going to love it, it's worth every penny" ... many pedicabs drivers provide small extras to entice customers such as music, blankets (if it is cold), and even water (if it is hot). Corroborating sources:
 - http://www.confluence-denver.com/features/denver_pedicab_041614.aspx
 - https://www.westword.com/news/wheels-of-fortune-5098540
- ²⁴¹ In recognition of this safety issue, Community Cycles recently change its policy regarding earn-a-bike (and other) bikes requiring them to have reflectors

https://communitycycles.org/frontpage/community-cycles-board-passes-reflector-policy/

²⁴² Specifically, I've observed people riding in uniforms for Burger King, CU FacMan custodial, Starbucks, Subway, and Taco Bell

²⁴³ New bikes can be purchased from big box stores and online discount wholesalers like Bike Nashbar for as little as \$100 on sale. And, most entry level hybrid cruisers and mountain bikes that can be purchased for about \$300

²⁴⁴ Also referred to as "Huffy", "Walmart", or "box store" bikes

- http://forums.mtbr.com/general-discussion/department-store-bike-bashing-836044.html
- https://www.rocktownbicycles.com/blog/2018/1/8/why-you-should-not-purchase-department-store-bicycles

²⁴⁵ Cycle chic is a style of dress that include specialized riding apparel that is designed to be worn to work, school, or other destinations, that is dress for both the ride and the destination (clever isn't it)

• https://www.nytimes.com/2014/10/23/fashion/for-the-bike-to-work-generation-a-move-to-fashionable-high-tech-clothing.html

Several magazines devoted to urban riding and

- https://www.bikecitizens.net/magazin/
- https://momentummag.com/about/
- •

²⁴⁶ Cyclists, cruisers, urban hipsters, and other "lifestyle" groups wholly Bicyclists or Rec Riders, those categories cut across these groups. Bicycle-oriented "lifestyle" groups are primarily distinguished by specialized bikes and gear basically they are consumer subcultures

- Magnuson 2012 Bike Tribes
- Weiss 2011 Cycling Tribes

Others exist, but I observed these

- (1) I use urban hipster to connote urban riders ... the style including Cycle-Chic
- (2) Pro and wannabe pro-cyclists include those elite, aspiring riders who associate with pro's development teams, etc.
- (3) Messengers, anyone who participates in "courier culture". Someone could ride a bike and dress like a messenger, even hang out with other messengers but not be employed as a messenger. Also, someone could work as a bike messenger but not ride or dress as other messengers do, or associate with them beyond work.
- (4) Cruisers

The conspicuous consumption of bicycling (practiced in specific ways) and bikes is basis for group membership

²⁴⁷ Interestingly, (in addition to Cycling Chic), bike messengers have been fashion trendsetters after which urban riding apparel, and urban fashion in general is modeled on the apparel of bike messengers. Chrome once only sold handmade, bomber bags, now the produce a whole line of fashion for urban riders and more (many non-riders use their tiny messenger bag as an all-purpose shoulder bag.

https://www.chromeindustries.com/our-story.html

²⁴⁸ As riders fall deeper and deeper into the sport, they want to ride or wear something unique -- much like custom cars. By the time a person spends hours each week on their bikes, they're no longer content with pulling one off the rack. "Part of a passion for cycling -- you want to have that effect where you pull up at a stoplight or pull up at Amante (Coffee) and people go, 'Oooh what's that?"

http://www.dailycamera.com/ci_22617458/boulder-area-companies-prepare-north-american-handmade-bicycle

²⁴⁹ https://www.chromeindustries.com/our-story.html

²⁵⁰ I see way more custom recumbent bikes in Boulder than in Denver. I suspect, but do not have data to substantiate that they are engineers (a very popular occupation in Boulder)

²⁵¹ As opposed to how it is used in cultural studies to refer to subcultural places and networks, e.g. a "youth scene" or a "music scene".

²⁵² The first time the phrase "the definition of the situation" appeared in print, was in a 1921 book published by sociologists Robert E. Park and Ernest Burgess, "Introduction to the Science of Sociology". In this book, Park and Burgess cited a Carnegie study published in 1919 which apparently used the phrase. They wrote, "common participation in common activities implies a common 'definition of the situation'. In fact, every single act, and eventually all moral life, is dependent upon the definition of the situation. A definition of the situation precedes and limits any possible action, and a redefinition of the situation changes the character of the action." ... they argue, without a definition of the situation that is known among all participants, those involved wouldn't know what to do with themselves. And, once that definition is known, it sanctions certain actions while prohibiting others.

253 Also see:

- Krizek et al. 2004
- Parkin et al 2007
- Thigpen et al. 2015
- Nehme et al. 2016
- Brown and Sinclair 2017

For differences in the ways the rules of road are negotiated by gender and more, see

- Thompson 2015
- M. Johnson et al; 2011 and 2013

²⁵⁴ Other works on everyday mobilities and bicycling

- Miller (2001)
- Wylie (2002)
- Lorimer and Lund (2003)
- Jones (2005)
- Spinney (2006)
- Cresswell (2006)

²⁵⁵ Everyday life

- Michel de Certeau (1984), The Practice of Everyday Life
- Erving Goffman (1959), The Presentation of Self in Everyday Life
- Henri Lefebvre (1947), Critique of Everyday Life
- Glassner and Hertz Qualitative Sociology as Everyday Life (1999)
- Rita Felski (1999). The Invention of Everyday Life

²⁵⁶ Organizationally defined means that the status (and to a lesser extent associated roles) is formal, and most likely recorded somewhere in a plan, program or budget, and is likely associated with some data. E.g. number of "racers" in last Colorado Classic, number of "bike store customers", etc. Like all statues, these are conceptualized independent of its enactors.

²⁵⁷ Depending on how such is operationalized and measured, upwards of 50% of urban space is dedicated to embodied mobility (mostly for cars), and the largest structure ever constructed by humanity is the U.S. Interstate Highway System. (Manville and Shoup 2005:234)

²⁵⁸ I use the terms road/roadway and street to differentiate between two distinct places that people ride bikes. *Roads* are transportation infrastructure that is car dominated and "high stress" (Furth et al, 2016). Roads (both urban and rural) are thoroughfares characterized by moderate to heavy car traffic traveling at moderate to high speeds (>25mph). Roads have multiple, well-delineated lanes that may, or may not, include bike lanes.

²⁵⁹ Dill and McNeil's studies (2013, 2016) find that no more than 7% of PWRB are considered "strong and fearless" riders, a figure that is corroborated by my research in which I designate 4 of 62 (6.5%) research participants as "strong and fearless"

²⁶⁰ I use the terms road/roadway and street to differentiate between two distinct places that people ride bikes. *Streets* are calmer, low stress, and less car-dominated. Though still shared, car traffic on streets is light and slow (<20mph), and thus streets have few if any lane markings. The quintessential street is a culde-sac in a low-density residential area, or one lined with wide sidewalks, cafés, and small stores in an urban area. Furthermore, I precisely use the term "calm" to denote roads and streets that have been subjected to traffic calming techniques and/or are "low stress" (Furth et al, 2016) by their nature

- https://safety.fhwa.dot.gov/ped_bike/univcourse/pdf/swless11.pdf
- https://www.transportation.gov/mission/health/Traffic-Calming-to-Slow-Vehicle-Speeds
- ²⁶¹ This extra hard for PWRB because there are no "fender benders" on a bike.

²⁶² Drawing on work by Harvey Sacks (1989), David Sudnow (1972), and Erving Goffman (1963, 1971), Conley describes four types of "mobile looking" glances that are used in traffic between unacquainted persons: identifying scans, focused looks, sanctioning looks, and integrating glances. Each differ in their timing and duration on the one hand, and their focus, on the other (Conley 2012:220). Also see ...

- Goffman 1959 Presentation of Self
- Goffman 1971 Relations in Public
- Wolfinger 1995
- Jensen 2013 Staging Mobilities
- Lloyd 2017

²⁶³ Success here is about saving face. To successfully perform the bike rider role, one must do so and not lose face (maintain a favorable self-image). This subsumes many other indicators of a successful bike ride such as not being killed or injured, not being insulted or harassed, avoiding unwanted attention, arriving at destination on time and appropriately dressed and comported for example, not too sweaty, tired, or "overgeared" (underdressed).

²⁶⁴ I have no reason to believe the social media posts (specifically, Next Door in Boulder) were a cause of feeling unwelcomed because I don't think many of my Reluctant Riders read Next Door. Rather I take it to be an independent verification that the sentiment was rooted in actual events.

²⁶⁵ Cycle tracks are also known as separated or protected bike lanes, and cycle-priority pathways. https://nacto.org/publication/urban-bikeway-design-guide/cycle-tracks/

²⁶⁶ To my knowledge, there are no studies that uses Furth's LTS methodology to assess non-motorized pathways.

²⁶⁷ Though it is not legal ride a bike on the sidewalks in many important areas of Boulder and Denver, primarily their central business districts and retail areas, riding on sidewalks is permitted (or at least tolerated) in low-density residential neighborhoods, the same parts of town where most streets are found as well. Streets and sidewalks are a pairing of facilities that safely accommodate Simple and Reluctant Riders.

²⁶⁸ The cycle tracks and MUPs I regularly observed in the course of my research include South Platt River and Cherry Creek paths in Denver, and the Boulder Creek, South Boulder Creek, Centennial, and Broadway Bike paths in Boulder.

²⁶⁹ Recreational riding on pathways and rural trails is organizationally passive. However, fees are charged at some bike parks (e.g. those constructed by ski resorts) and velodromes making their use organizationally active. However, in Boulder and Denver the largest and most popular bike parks, as well as the ones I observed, are municipal, free of charge and open to all.

- ²⁷⁰ Specific sports I observed include BMX, Cyclocross, Mountain Biking, and Track Cycling. To be clear, Track Cycling is sport that occurs in velodromes, not on Cycle Tracks. Recall that cycle tracks are bicycling facilities found along busy roadways used for everyday bicycling.
- ²⁷¹ As several of my interview participants have described raising the ire of hikers and horse riders by passing them on single track trails. Other trail users believe bike riders pass to closely given the relative speed difference, especially when traveling downhill.
- ²⁷² https://www.bouldervalleyvelodrome.com/
- ²⁷³ Events in which I participated and/or observed, include Boulder's Thursday Night Cruiser Ride, Denver Cruiser Ride, Boulder's B-360, and Buffalo Bicycle Classic, the Colorado Classic / US Pro Challenge, and a couple of alley cat races

Like other distinctions, the difference between rides and races is primarily analytic, used here to represent the poles of a spectrum of generally similar events.

- ²⁷⁴ In the course of my research, participated in three Critical Mass rides, one WNBR and the Folsom St. protest. See Ch 4 for additional details about the many rides and races in which local riders can perform.
- ²⁷⁵ Though rare (and not in my observations) Critical Mass rides have led to acts of property damage and violence against car drivers. Though not violent, some might say, the nudity of WNBR is worthy of felony sanctions and being labeled a sex offender. Denver WNBR participants have been arrested.
- ²⁷⁶ Most bicycling protests acknowledge car dependency and its structural character, thus do not color car drivers as individually malicious or indifferent (though some are). However, car-dependent drivers are pitied which is to some extent is condescending and a criticism many do not appreciate.
- ²⁷⁷ While members only meetings are indeed a scene at which bike riders present their rider-selves, I found public meetings to be more informative (and easy to observe), and thus are the focus here.
- ²⁷⁸ In each of the four aforementioned scenes, the bike rider role features people actively riding bikes, but they also include opportunities to perform a Bicyclist role off-bike, an opportunity that everyday bicycling alone does not afford. For example, most rides include a post-ride celebration with food, drink, sometimes music. And PWRB play the bike rider role off-bike as spectators at races.
- ²⁷⁹ The Bicyclists I spoke to at public meetings and protests responded in different ways to adversaries, most of whom were non-riders, but also included Rec Riders who saw riding purely as an off-road endeavor. Some were energized by the antagonism (the "bikelash"), while others were discouraged by it, a difference I attribute to more general personality features related primarily to their privilege. The most vociferous Bicyclists were white, middle aged, men which may be because most Advocates are white, middle-class middle-age men, or because as Furness (2010:100-103), and other riders of color explain, class and racial privilege plays an important role in people's ability and willingness to protest. While several prominent civic and non-profit Advocates in Boulder and Denver are women, the bicycling Advocate communities are overwhelmingly white and middle/upper-middle class and middle-aged ...
 - https://www.flickr.com/photos/andyb/sets/72157704609317815/with/32433306238/
- ²⁸⁰ Because of the formal and institutionalized character public meetings, a Rider would not be an Activist by participating, unless they did so in deviant or illegal ways. In the course of my research, I observed such activism only once at a public meeting. Seth Bingham was arrested on Feb 16, 2016, at a Boulder City Council meeting for being disruptive and not following the orders of a police officer However, his reason for protesting and comments were not related to bicycling.
- ²⁸¹ Examples of classes and lessons I observed as part of my research include Community Cycle's Learna-Bike and Earn-a-Bike classes, as well as the BVSD B.L.A.S.T. program.
 - https://communitycycles.org/what-we-do/ and

- http://bikestogether.org/earn a bike/ and
- https://www.bvsd.org/transportation/toschool/blast/Pages/default.aspx

For examples of bicycling clubs and teams in Boulder and Denver see Ch 4

²⁸² Sometimes all at once. Several bicycling third places combined all three sorts of establishments under one roof. E.g., the Denver Bike Café and the Tune up Taproom in Full Cycle in Boulder

- http://denverbicyclecafe.com/
- https://www.fullcyclebikes.com/about/the-tune-up-pg148.htm

²⁸³ Humorous examples of "shit cyclists say"

- https://www.youtube.com/watch?v=GMCkugL9IcM
- https://www.youtube.com/watch?v=TEhySzO14ik

²⁸⁴ According to the nomenclature from which the term "third place" is derived, work is the "second place". However, I will not refer to it that way. Also, home, the "first place", must be a scene in which riders perform, or serves as backstage (Goffman 1959), but is not mentioned here due to lack of data on what must be a very complex and informative scene, and definitely worthy of future research.

²⁸⁵ Based on discussions with bicycle couriers and courier company representatives, I estimate the number of full-time bicycle couriers working in Boulder and Denver to be no more than 100, practically all of whom are bike messengers. Due to data limitations, it is difficult to for me to say with certainty the number of app-dispatched and food delivery riders work in Boulder and Denver (though the data could be obtained from employers and City, I have not done so). Lee (2018) suggests that upwards of 45% of NYC bicycling trips are accounted for by food delivery riders! Though Boulder and Denver are not NYC, this estimate suggests that the number of food delivery riders may be substantial. Also, the number of pedicab peddlers working varies significantly by the season, and day of the week, with upwards of 100 peddlers working in downtown Denver for a summer, weekend, event such as a baseball game. I am unaware of any "full time" pedicab peddlers, or app-dispatched and food delivery riders.

²⁸⁶ There may be other bicycling scenes in other communities that I am unaware of, but I am confident that the scenes discussed here, are inclusive of ALL bicycling types of scenes in Boulder and Denver.

²⁸⁷ Motivation is the reason for people's actions, willingness and goals. Motivation is derived from the word motive, which is defined as a need that requires satisfaction. These needs could also be wants or desires that are acquired through influence of culture, society, lifestyle, etc. or generally innate. Motivation is one's direction to behavior, or what causes a person to want to repeat a behavior, a set of forces that acts behind the motives. An individual's motivation may be inspired by others or events (extrinsic motivation) or it may come from within the individual (intrinsic motivation). Motivation has been considered as one of the most important reasons that inspires a person to move forward. Motivation results from the interaction of both conscious and unconscious factors. Mastering motivation to allow sustained and deliberate practice is central to high levels of achievement.

288 Most symbolic interactionists believe a physical reality does indeed exist by an individual's social definitions, and that social definitions do develop in part or in relation to something "real". People thus do not respond to this reality directly, but rather to the social understanding of reality; i.e., they respond to this reality indirectly through a kind of filter that consists of individuals' different perspectives. This means that humans exist not in the physical space composed of realities, but in the "world" composed only of "objects". Three assumptions frame symbolic interactionism (Blumer 1969 Symbolic Interactionism: Perspective and Method)

- (1) Individuals construct meaning via the communication process.
- (2) Self-concept is a motivation for behavior.
- (3) A unique relationship exists between the individual and society.

²⁸⁹ Other prominent theories that link meaning and motivation to behavior, bicycling in particular, include the Theory of Planned Behavior (TPB), and Stern et al.'s (1999) Value-Belief-Norm Theory (VBN). While SI is a general perspective, these are theories from which hypotheses precisely linking meaning, motivation,

and behavior are readily derived. These are valuable ways of understanding bicycling and PWRB. And while not the approach taken here, I have used these theories to explore bicycling and PWRB elsewhere

²⁹⁰ Here I use the term egoistic very narrowly to mean motivated by self-interest, and it should not be confused with the more pejorative term egotistic. I am not suggesting that these meanings are necessarily selfish or "wrong".

²⁹¹ Details such as the expense and specialization of a rider's bike and gear also distinguishes Reluctant Riders from "travelers", people who superficially look like and live lifestyles similar to, the homeless and marginally housed. Like Reluctant Riders, some transport their possessions by bike, and often sleep outdoors in unauthorized places such along the riparian pathways and urban greenspaces of Boulder and Denver. However, rather than being homeless and carless, they are unhoused by choice (home-free), and more appropriately considered car-free because they are living in such a manner by choice - or so they say. It may be that the whole "home-free" shtick is a stigma management technique, and a large number, perhaps most, of Boulder and Denver "travelers" are really homeless or marginally homed runaways who have reluctantly left home due to negative circumstance. But that is a topic for another paper. Corroborating sources

- https://www.google.com/search?q=travelers+vs+homeless
- https://psmag.com/social-justice/crusties-gutter-punks-travelers-whatever-dont-call-homeless-89243
- http://thetransientway.blogspot.com/2010/11/transients-vs-homeless.html

²⁹² I refer to hostility aroused in response to bicycling staging efforts as "bike-lash". Unfortunately, a full accounting of the topic is beyond the scope of this dissertation. However, I have written of bike-lash, and the closely related phenomenon of "bike rage" elsewhere, Johnson, Piatkowski, and Marshall 2017 and plan to further explore both in future efforts.

- ²⁹³ The relationship between one's identities and their bicycling practices and experiences is relatively well researched. Skinner and` Rosen (2007) summarize the field in terms of three approaches to framing the relationship between "transport and identity" (p.86).
 - (1) Pre-existing, personal and social identities determine one's mode of everyday embodied mobility and subsequently the purpose for, practice of, meaning and motivation for bicycling. PWRB are of a certain personality and/or sociodemographic type that determines how and why they bicycle; identities are affirmed (maintained and expressed) through bicycling.
 - (2) Particular types of PWRB come to share a common meaning and motivation due to shared bicycling experiences; one's bicycling experiences determine their Rider type-identity (Reluctant, Simple, Rec, or Bicyclist).
 - (3) Personal and social identities, bicycling practices, along with one's bicycling experiences are both the cause and effect in an emergent process in which each reflects and reproduces the other ... per theories of reflexivity that locate the nexus of structure and agency in the minds of people (e.g. Archer, Beck, Giddens, etc.), I summarize this process as the "riderself".
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²⁹⁴ For the theoretical underpinning of this dual approach ... see Tavory 2010, section titled "Boundaries, identifications, and their expectation".

²⁹⁵ The term "othering" describes the reductive action of labeling a person as someone who belongs to a subordinate social category defined as the Other. The practice of Othering is the exclusion of persons who do not fit the norm of the social group, which is a version of the Self. Likewise, to other an individual identifies and excludes them from the social group, placing them at the margins of society where social norms do not apply ... "Otherness." *The New Fontana Dictionary of Modern Thought*, Third Edition. Eds. Alan Bullock and Stephen Trombley. London: Harper Collins, 1999. 620. For more on accounts and related stigma management techniques see:

- Mills 1940
- Sykes & Matza 1957
- Scott & Lyman 1968
- Hewitt & Stokes 1975
- Colman 1994
- For more on accounts of PWRB, see Johnson 2011

²⁹⁶ Othering is a process that may be applied to oneself, whereby one experiences oneself as a stranger, indeed Lacanian theory views this 'self-othering' as the process whereby the symbolic order is established – the unconscious is the stranger within ourselves. A man, for example, has no choice but to silence or even kill the 'woman in him'.

 Lacan, J. 1988. The Seminar of Jacques Lacan. Book 2. The Ego in Freud's Theory and in the Technique of Psychoanalysis, 1954-1955. New York: W.W. Norton.

²⁹⁷ Austin did not specifically say where his apartment was located, and I did not probe. But based on clues from our discussion, I believe he is living in the Lee Hill Housing First Community apartments, and working for Community Table Kitchen (Bridge House)

- https://boulderehousing.org/property/lee-hill-housing-first-community
- https://boulderbridgehouse.org/what-we-do-3/#

²⁹⁸ Cyclist and urban commuters in particular, I assume due to their visibility on the roadways, but when probed they would include mountain bikers, cyclocross, BMX as well as Advocates, Activists, and Laborers in their "bike nut" category

²⁹⁹ I actively had to recruit every participant that I came to categorize as representing Simple Riders. That is, I would approach them, and ask to talk because Simple Riders would not responded to passive recruitment efforts such as my flier ... even though it did not specifically call for "bicyclists", rather simply asked, "do you ride a bike? Do you have stories to tell?"

³⁰⁰ To reference one well-known rivalry: https://www.google.com/search?q=mountain+biker+vs+road+biker
³⁰¹ I was able to interview only a few Activists, only three of which are local. In the interest of obscuring their identities, I've written this section general terms

³⁰² Which as mentioned in Ch 4 is at least partly made reasonable by white male privilege (Ch 4:46, Furness 2010:100-103). Also see Heitzeg 2011 for a look at the role of privilege in the "Occupy" movement.

solutions for example, when I ride dressed in everyday clothes, with my children, in a manner expected on a calm creek side pathway, I am a person enjoying a safe, clean, healthy activity. However, if I change my clothes and ride a bike specialized for road racing (cycling), and ride in a large group of similar looking riders up a canyon road, I become an inconsiderate, over-privileged "cyclist" clogging up the road. Or, if I don a messenger bag, ride a fixed-gear, customized bike through urban roads and streets and in a manner that violates the rules of the road as means of protesting hyperautomobility, and am a threat, a deviant "masshole", and even a criminal. Same person, different places and practices, and thus a different assemblage. Similarly, different people riding in similar places and manners also constitute different assemblages. For example, as I observed the case to be with Reluctant Riders bicycling on calm residential streets. Though they ride in a similar manner and place as Simple Riders such as children, because of differences in the person aspect of the assemblage they are not the same bike rider, and not judged in the same way.