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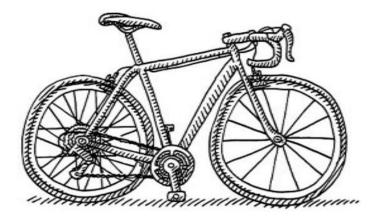
Recommended Citation

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Material Politics of the Bicycle



Senior Project submitted to The Division of Social Studies of Bard College

by Joshua D. Rotbert

Annandale-on-Hudson, New York May 2017

for mom, dad, aaron, and gma

acknowledgements

to my advisor, Yuka Suzuki, without whom this project would not exist. who has read and graded countless drafts and papers, entertained my intellectual tangents, listened to my many stories, and been the best teacher to me that I could ever have asked for. I am eternally grateful for your unwavering kindness, encouragement, and support—you have helped me think, learn, and grow in ways that I won't ever forget.

to Sophia Stamatopoulou-Robbins, who always challenged me to see things differently. our time together inspired me in this new chapter of my life. p.s. I really wish you hadn't taken that sabbatical.

to Jeffrey Jurgens, your inspiring and insightful mind has kept me up writing and thinking late into the night. your presence has been instrumental to many aspects of this project. thank you for enriching my time here at Bard.

to Susan Winchell-Sweeney, not only for teaching me all semester long, but for inspiring me. I appreciate your kindness and patience, but most of all for sharing your time with me.

to Jonah Rubin, for showing me that death is more than just an end. I appreciate your sharp mind and I sincerely hope this project inspires you, just as your work has inspired me.

to Laura Kunreuther, for showing me what real ethnography looks like. You've pushed me to ask, read, and think far beyond what I had even thought to do.

to Matt, thank you for one hell of a time, putting up with my insanity, all the sweat and blood we shed together for months in the sweltering summer heat, and most of all for teaching me to let go.

to Deldar, for talking with me late into the night, our "platonic friend dates", laughing with me for hours on end, and most of all for your sagely advice. I am so grateful for all of your love, friendship, and wisdom.

to Carlo, my darling, for staying sassy. thanks for showing me a million new ways to think, I've loved all of our conversations—can we take another road trip soon?

to Nina, for being the sister I never had. It has been a privilege to be around you as you learn and grow as a person. I'm very glad you're a part of my life.

to Kara, your presence and support has kept my head above water in some difficult times. thank you for your friendship, and especially our magnificent road trip through the western desert.

to Liz, my fellow SPROJ-er, your honesty and laughter has kept me happy and sane for as long as I've known you, thank you for being you. oh and thanks for the food.

to Acacia, whose humor and wit have kept me going. thank you for our amazing post-class swing sessions, they've gotten me through the thick of it.

to Joy, for inspiring me in our every interaction. you've always pushed me to think in new directions.

to Christian, thank you for your beautiful pieces, and for kicking it in the co-op with an old guy like me.

to my bike co-op crew, I will never forget the wonderful hours I've spent with you and our machines.

to all my fellow Anthro students, class with you has opened my mind in ways I never thought possible.

and to all the people who shared their time with me at Bard, thank you. I will never forget it.

- josh

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preface: the shop

We're sweating like crazy and it's only ten o'clock in the morning. After removing all of the bikes stored inside the shop for the night, me and my fellow bike mechanic Matt take an unsanctioned break near the construction fence that opposes the shop. We try to cool off next to a giant stack of rental bikes. Their numerous metal frames are set in a line to one side of the sidewalk—a halfhearted attempt to lure unsuspecting customers inside. Leaning against the chain-link fence, we look like a pair of vagrants with our permanently grimy and grease stained clothes. It is an unavoidable consequence of our hard labor back in the bowels of the repair room. As part of our daily respite, Matt also makes time to feed his nicotine habit. Sucking down a hastily rolled cigarette, he proclaims, "I hope the tour group today isn't more than twenty-four, cause I really don't feel like pulling any more bikes out of the basement today....It's too damn hot for that!" I nod slothfully in agreement, squinting at the brightness of the summer sun beating down on our local street. I know it's hot, but it's only going to get hotter.

Before we can even cool off in the stiff breeze, it's time to head back into the stale and humid shop. Moving past the retail front of the space, the back room of Roger's shop is dark, dingy, and extremely small. The bare, grease-stained plywood of the floors here stand in stark contrast to walls that are completely covered by rows upon rows of shelves and cabinets. Various items of trash pepper the floor, and out of the corner of our eye, we can occasionally catch a glimpse of a mouse running by. Every conceivable corner of the room is encrusted in years of detritus. Each shelf and drawer is filled with miscellaneous parts and tools—looking more like a hoarder's paradise than a repair room. Sitting in the corner of the back wall is a solitary door, shoddy beyond belief. It's our only source of valuable ventilation in the oppressive summer heat. The lights on the ceiling barely shine through the ceiling clutter onto the floor—every available inch of headspace is filled with bicycles, wheels, tires. But regardless of its unkempt and chaotic appearance, it is the figurative heart of the shop.

Despite my distaste for the messy workspace, and the scathing temperatures outside (made worse by the fact that Roger doesn't have an air conditioner), waiting patiently inside the shop sit a thousand dollar Bianchi "Via Nirone," a twenty-year-old Schwinn steel road bike, and a laughably cheap department store knockoff brand. Being the first one in, I immediately claim the Via Nirone. Almost like driving a brand new car, it is always much better to work on a more expensive bike. Completely avoiding the department store bicycle all together, Matt reluctantly drags the Schwinn towards the repair stand. We labor in the heat to secure our bicycles to the stands' frames. Salivating with anticipation, my eyes dance around the beautifully made components. Their chrome accents glint spectacularly in the sunlight of the doorway.

Before I can jump into the repairs, I am hit square in the chest with a sudden torrent of sentimentality. It is something like nostalgia—but it is less of a longing and more of an affirmation of the events of my past. I am profoundly happy to have acquired all the skills and knowledge I need to work as an efficient mechanic. Sitting in the corner of the repair room, I reflect on my past and how I came to arrive in these circumstances, surrounded by the sounds of the city and the shop. I begin to remember the first time I ever worked on a bike. The frustration, relief, and satisfaction are all as vivid as the first day I experienced them. Still, questions flood my mind: Is this what keeps me coming back? What is it about working with bikes that gives me such satisfaction? And most importantly, why am I so attracted to this particular bike?

In its most basic sense, a bicycle is simply a collection of plastic, metal, and rubber parts. Yet, within the powerful affective dimensions of the bicycle, there is so much more to encounter. It has a special power within human life—I realize this is what has kept me going on these long, hot, summer days. But instead of straining myself by continuing to ponder such existential questions, I simply sit next to the radio and let myself go in the moment.

introduction: the bicycle and its semiotics

There really is nothing else quite like it—getting on a bike for the first time. It's an object that demands you let yourself go in its precarity. To those unfamiliar with it, this initial act of positioning can be unnerving, frightening even. Just sitting on it, you are still confronted with a distinct feeling of visceral and imminent danger. The bicycle's form also appears so radically unstable as to completely prohibit its effective use as an efficient mode of transport. Its twin wheels are seemingly out of place, as the bike cannot stand upright upon them on its own; without help, it would simply fall lifeless to the ground. Yet, a fact that millions of comfortable users can attest to, when used properly, the effective power of its design becomes immediately apparent. To those familiar with the sensation, riding a bicycle is likely an unforgettable and empowering experience. This then begs the question: where does the power of this feeling emerge from? What is it about the physical form of the bicycle that comes to have such a powerful effect on the human experience? It is my assertion that through its function as object of utility, bicycles offer their riders a uniquely embodied connection, of a strength and character found nowhere else.

The power of this relationship emanates from the bicycle's ability to provide its user with a relatively unmediated experience, supported by a direct connection to both its unique physical qualities, as well as the technologies that support its effective manipulation by human hands. Like few other transportation solutions, bicycles are able to bridge the gap between the human and mechanical form. The pedals, chain, and wheels, work in harmonious union to transfer organic leg movement into mechanical forward momentum. Tasked with translating the subtle directional shifts of the human body, the handlebars also provide cyclists with a simple, yet effective way to steer themselves away from danger. Although aided by the gyroscopic motion of forward spinning wheels, a rider's balance is maintained almost exclusively by unconscious bodily reflexes that work to keep them upright. Every twitch or shift of the rider's body is transferred to the bike through a synergistic union of the biological and the mechanical.

The simplicity of a bicycle's shape and structure contrast it with more technologically complex forms of transportation. Machines like trains, airplanes, cars, helicopters, and motorcycles, are all more intricate in their construction—they each require motors, fuel, or electricity to function. Additionally, such modes of transportation encase their rider in metal and glass, literally separating their operator from the outside word. This distance from an external environment is disconnecting; it separates the rider from the sensations of movement, sound, and smell—cutting them off from the sensations of life. In these cases, the human form is relegated to the passive role of spectator: unable to smell the trees along the road, feel the wind in their hair, or the coldness of rain on their skin. Such forms of transport render a rider unable to form a deep, embodied relationship with their vehicle. This is very unlike the kind of direct and embodied connection that exists in relation to the bicycle. On a bicycle, the sensorial world is at all times present, and accessible. The cyclist is in many ways, free; they travel without an intermediary that inevitably comes to block out the external environment.

Distinct from other more complex forms of transportation, the bicycle relies exclusively upon the physical action of the human body. With an exceptional lack of physical mediators, the bike achieves something rarely found in other modes of transportation: an embodied and physical connection between occupant and vehicle. Every movement of the bike is a direct result of human input and effort. It provides its rider with something few other objects can; in response to nuances of movement and balance, the bicycle functions as an extension of the human form. Like a mechanical prosthesis, the bicycle works to augment the bodily movements of its host. Due to a lack of physical barriers inhibiting sensory experience, a bicycle rider is also able to envision the bike as more than just a machine, more than just a vehicle, but as a direct extension of the human body.

Yet, for all that the bicycle can provide its rider, it is not without drawbacks. Despite its deep physical association with the motions of the human body, the forms of the bicycle also restrict the movement of their rider to a certain degree. Its shape and structure force the human body to operate it in accordance with a specific set of rules. For example, one cannot simply sit on the handlebars, or push the pedals backwards, and expect to operate a bicycle efficiently or safely. Likewise, each piece of the bicycle has been designed carefully to live in harmony with the body of its rider; like few other forms of transportation, the design of the bicycle has successfully incorporated the motions and mechanics of the human body into its present design. Through all of this, the successful utilization of a bicycle is only achieved through sustained attention and concerted effort. Riders must be attentive to not only their own bodily mechanics and limitations, but by extension, also cognizant of the material restrictions of the bicycle itself. Proper operation, thus, comes a direct result of obeying a simple set of mechanical rules.

Although the nuances of safe riding should by no means be limited to the following list, they exist as examples of the kinds of behaviors an effective rider must always consider. First, if you want to stay upright without putting your feet on the ground, keep pedaling. Forward momentum on the bike ensures that the gyroscopic tendencies of the wheels will aid you in keeping you and your machine upright. Second, turning the bicycle is a mere matter of moving the handlebars. Point the front wheel in the direction you want to go, and your bike will travel there. There are no complex controls or gauges to consider, nor are there any complex apparatuses to consult when making a turn. Finally, don't forget where the brakes are. As anyone who has ever been on a bike without brakes will tell you, being able to stop effectively (and quickly) is one of the most important things about riding.

the social life of the bicycle

The aforementioned rules constitute the most important physical potentials of the bicycle: moving, turning, and stopping. Its peculiar physical form demands that these physical laws be of the utmost concern to any prospective rider—to disobey or flaunt them only brings danger (or tragedy). Emerging out of this unique symbiosis, the bicycle and its rider share a relationship of remarkable closeness and strength. It is this factor, one that lies at the heart of this project, which subsequently opens up the possibility of interpreting the many social dimensions of human life through the bicycle. Emerging out of an appraisal of their embodied qualities, I therefore begin this project with one critical question in mind: how are bicycles a special kind of object, one that is consequently "good to think" with in regards to the social lives of people? (Lévi-Strauss 1966). In tackling the questions of why and how the bicycle might be an effective lens in which to uncover the social meanings that inhere to objects of the material world, it becomes necessary to clarify the ways in which the bicycle is a distinctly "social" object.

Within the peculiar nature of this bike–rider symbiosis, the power of a uniquely embodied connection coincides with the creation of a visceral bond between human and machine. But beyond its implications in this direct and immediate physical sense, the unique physical qualities of the bicycle as outlined above, are also what constitute it as an exceptional object within a variety of social milieu. Rising above other forms of transportation, the deep connection defining the bicycle's physical operation, are exactly the features that allow it to be so effectively mobilized in the interpretation of a variety of social contexts.

Through a close understanding of its physical characteristics, emerging out of my status as an experienced bicycle mechanic, I therefore conceive of the bicycle as a social object of special significance and power. Following in the footsteps of renowned anthropologist Arjun Appadurai (1986) and his conception of commodities as things with the profound potential to affect the social sphere, my research calls for envisioning the bicycle in similar terms. The nature of his argument, broadly construed, is "that commodities, like persons, have social lives" (Appadurai 1986: 3). In other words, that objects in the world both shape, and are shaped by the social contexts that surround their creation, use, or consumption. In that, the bicycle is no different. Existing as an object with a distinct and quantifiable economic value, living within the present neoliberal, capitalist world of material products, it is subject to the same economic and social forces as are all other commodities.¹ Much as Appadurai argues, I am not focused exclusively on the economic potential of the bicycle as a commodity here. In fact, over and above its monetary value, the bicycle's social characteristics become its most important and useful traits within the contexts of the shop.

It is within this foundational frame, that my claim asserting the bicycle status as a special kind of social object finds its footing. Here the bicycle is a site, like the commodities of

¹ In a quick aside, I must stop to note that in using the term "neoliberal" here, and throughout this project, I am responding to a critique made by scholars such as Aihwa Ong (2006) and Andrew Kipnis (2007: 383-4). Specifically of the dangers inherent to the reification of "Neoliberalism" in Anthropological discourses, and the capacity of such practices to essentialize, universalize, and homogenize—all while ignoring difference and the nuances that inhere in any ethnographic study of a particular context. Though aware that using this term liberally poses a risk, I mobilize it in a general way to illustrate how many of my relatively disadvantaged informants are subjugated and oppressed by the vast economic and political systems of the contemporary world.

Appadurai, where "human actors encode things with significance," and where the object itself comes to "illuminate [the] human and social context" into which it is placed (Appadurai 1986: 5). Like any other commodity, the bicycle is an object that both shapes, and is shaped by the many social worlds it inhabits. It is given meaning by outside actors, who attribute a variety of specific thoughts, assumptions, calculations, and everyday realities to the material forms they encounter.

Within the shop, this process is one that occurs innumerable times throughout the day. It is within a process of "reading," that the physical features of the bicycle are interpreted; it is where their connection to a variety of social contexts is traced, and where conceptions of social status, class, and identity become the key features of analysis. Through an effective "reading," a wide array of social features come to exist as more than just nebulous social concepts, taking on concrete material and tangible forms. It's also a process that goes relatively unnoticed by most. Obscured by the minutiae of everyday life, only the most attentive observer becomes aware of its occurrence.

"reading" the bicycle

In order to position the bicycle as an exceptional social object, and to delineate the processes involved in any bicycle "reading," I draw from the work of Charles Sanders Peirce (2000) and Ferdinand de Saussure (1966), in the realm of semiotics. Additionally, in seeking out a more nuanced understanding of these theories, I am also inspired by a variety of interpretations of the semiotic, found in the writings of Richard Montague (1968), Yehoshua Bar-Hillel (1954), Zoe Crossland (2009), and Eduardo Kohn (2013). Though each scholar interprets and mobilizes signs in different and compelling ways, I return to Peirce and de Saussure because I feel that

their conceptions concerning the different categories of signs that exist lay the foundation for this entire project. Their work is integral in answering one all-important question: when confronted with the task of thinking about social dynamics, why is the bicycle such an important object to consider? To begin to answer this question, we must first determine just what kind of object the bicycle is.

In categorizing the bicycle within a vast world of semiotic objects, a thorough understanding of the relationship between the *signifier* and the *signified* is of critical importance—it provides the necessary conceptual footing for describing and understanding the bicycle as a particular kind of semiotic object. Laying the foundation for the entire field of semiology, both Peirce and de Saussure take the signifier to mean the form of a sign (e.g. a sound, a word, a photograph, or as is the case of the bicycle, in its interpretable features), while the *signified* refers to the concept or object that is being represented by the sign in question (e.g. a command to stop, a message conveyed through words on a page, or an actual physical object that exists in the world). Applying this definition of these terms to my particular ethnographic context, the "readable" physical features of the bicycle fall into the category of the signifier. Though they are physical objects in their most basic sense, once they have been commissioned for the purposes of a "reading," they exist as interpretable signs that point to tangible realities vis-à-vis social status, class, and identity. To utilize the terms and concepts of Peirce and de Saussure: the bicycle's "readable" physical features are the signs, which represent a whole range of other signs.

While seeking to solidify the bicycle's status as an object with a particular kind of relationship to the semiotic, it is imperative to distinguish between the three different categories of signs as outlined by Peirce (2000: 98). First is the *icon*, where the signifier resembles the

object being represented (the signified). These signs are the most intuitive, because the object or concept being referenced can be accessed directly from within the signifier itself. Then there is the *index*, where the signifier shows some evidence of what is being represented, though this relationship is far less explicit than as with the icon. An index does not directly resemble the object or concept being represented; instead, the correlation between signifier and signified is merely implied. This association can be innately known, or it can be taught, but what matters is that a hint of the signified can be found within the signifier. Finally, there is the *symbol*, where an arbitrary relationship between the signifier and the signified necessitates that the connection between them be a culturally learned relation. There is nothing within either *signifier* or *signified*, to suggest a reason or logic to their association—these signs therefore vary widely between different social contexts.

Turning back to the process of "reading," it may be intuitive to consider the *symbol* as the prevailing type of sign one may encounter. Entertaining the premise that any interpretation of a bike's physical features requires the possession of relevant and socially acquired knowledge concerning the relationship between seemingly arbitrary objects, this kind of sign would fit most adequately. However, its use here would neglect one very important fact, that some of the bicycle's physical features directly resemble the meanings that lie behind them. Though conceiving of the bicycle as a *symbolic* form takes into account the need for specialized, socially relative knowledge with regards to attempting a "reading," it discounts the existence of a whole wealth of information, written directly upon the physical forms themselves. The simple fact is, that for those who know where and how to look, the bicycle is host to a vast array of visible markers that directly resemble the social realities they seek to represent. Though these meanings

may be different depending on the social or historical contexts in which a "reading" takes place, there is nothing arbitrary about the connection between signifier and signified in such instances.

With this in mind, I coin the term *indexicality*—a term that subsequently emerges as a key concept at play within the contexts of the bicycle shop. Its use here alludes to the *index*-like qualities of the bicycle's physical features, which lie somewhere in-between that of an *index* and a *sign*. Despite their differences, both categories of signs have an integral role in the semiological processes underscoring any effective "reading" of the bicycle. Interacting with its *symbol*-like qualities, mastery over a set of proprietary linguistic and epistemological conventions are what allow a specially trained individual to understand and interpret the semiotic information encoded upon the physical features of the bicycle. These conventions are also entirely dependent upon the particular social contexts from which a prospective interpreter emerges. Despite this, the socially relevant information found on a bicycle does not emerge exclusively from within relativistic social conventions or culturally specific *signifier*—*signified* relationships, as it might when considering a Peircian or Saussurian symbol. Though many meanings behind an interpretation are culturally relative, for those who know where and how to look, a wealth of inherent meaning can be found upon the forms of the objects themselves.

For example, a bicycle in need of repair can have two simultaneous, yet contradictory meanings, of which only one can be true. One "reading" may infer that the rider has been entirely neglectful and callous to their bicycle; another equally valid interpretation may conclude that the wear and tear present upon the physical features of the bike is indicative of significant use born out of a genuine love and appreciation for riding. Though at first glance both conclusions may seem equally valid in their own right, upon closer inspection of the forms themselves, only one perspective stands out as the truth. To the experienced and attentive interpreter, a myriad of nuanced clues are written upon the features of the bicycle pointing to this fact. The ability to recognize and properly appraise the clues tied to such forms is predicated on the acquisition of a particular kind of linguistic and epistemological expertise, one gained only through time, attention, and dedication. Despite the fact that everybody can attempt to "read" a bike, the bicycle mechanic is preeminently positioned to make informed judgments and insightful interpretations, through their possession of specific conventions of language and esoteric knowledge. The ability to interpret the *index*-like qualities of the bicycle's physical form properly is something gained only through practice and experience. Everyone can interpret a bike, but not everyone can do it right.

more than "just a bike"

Returning to the process of "reading," it is the responsibility of all those becoming acquainted with the bicycle's *indexicality*, to interpret the meanings behind its physical features properly. They must seek, much like Gilbert Ryle (1949) and Clifford Geertz (1973) do, to discover the difference between a "wink" and a "blink," as they are written upon the features of the bike. To better contextualize the meanings of physical signs, prospective bicycle "readers" must use the *indexicality* of the bicycle to uncover "thick description," and work hard to translate the "stratified hierarchy of meaningful structures" (Geertz 1973: 7) that permeate any study of a particular social world. By surrounding oneself with bikes (and the people attached to them), learning the appropriate semiotic meanings of features, and becoming fluent in the language of maintenance and repair, we can see the profound power of a mechanic's interpretations to illuminate the social meanings that inhere upon the bicycle's physical forms.

In championing *indexicality* as an effective conceptual frame with which to understand the bicycle, I am arguing that the many cultural formations that surround its life as a material object exist as legible signs to be "read." But even if one is sufficiently trained to be able to read the signs, what does it mean to read a something as a "text"? If the features of a specific cultural practice are to be read, how does one go about doing so? And if they really can be read—as I will come to argue—what kinds of information can we glean from them?

In the hopes of answering questions like these, I turn to the work of the anthropologist Clifford Geertz, and his experiences with the eponymous "Balinese cockfight." Through extensive fieldwork in rural Indonesia, Geertz comes to study the unusual significance that the cockfight has within Balinese society. It is made clear, that what Balinese society is "really like" (Geertz 1973: 417) is simultaneously seen through, and created by, the meanings that circulate with regards to various aspects of this shared social event. The symbolic importance of the event has wider implications beyond the everyday betting that occurs in conjunction with such matches. Those with the most to gain—or lose—through the Cockfights, are highly invested in the well-being of their animals. Laying one's "public self, allusively and metaphorically, through the medium of the cock, on the line," (Geertz 1973: 434) become the reason behind the social significance of these events. All cockfights in Bali are more than just bloody sport; the metaphorical and symbolic meanings behind them are just as important, contributing to an individual's status in society.

The cockfight is a space where Balinese society is continually redefined; it is through the fight that "the Balinese forms and discovers his temperament and his society's temper at the same time [sic]" (Geertz 1973: 451). It is where various aspects of Balinese society leave the relative safety and obscurity of normalized social practice, and enter into a space were they can

more easily be "read." The cockfight is just one example among many others, in which this kind of social phenomenon is possible. The fact that profound social meaning is inscribed upon the mundane objects and events of everyday life within the Balinese context indicates that an effective "reading" of cultural practices as "text" is also possible under many other circumstances. The Balinese cockfight points to the possibility—nay, the probability—that there is a wealth of meaning behind every socially relevant event, object, behavior, or otherwise, than what might be supposed at first glance.

It is exactly this potential that I would like to point to with regards to the bicycle. Though existing in radically different contexts, it too exists as a peformative space, upon which a multitude of social significance can be "read." In the same way that the cockfight exists as a space where larger social forces are managed, the bicycle inhabits a similar role. A careful "reading" of the bicycle has the potential to make legible the motivations and meanings behind a wide range of cultural practices otherwise obscured. It is the close embodied connection that the bicycle offers, along with the symbolic power of its many constituent parts, that enable any interpretive "reading" to take place.

In parallel to the Balinese cockfight, the bicycle is an object within contemporary society that has direct connections to questions of status, power, and wealth. Its significance surpasses that of "just an object," much as the cockfight's significance goes beyond its status as "just an event." It's a quality that provides for the possibility that deeper meanings and significances can be "read" directly from material forms.

everyday bicycle indexicality

When considering my own experiences in the shop—and out of my own tenured status as a bike mechanic—the interpretive "reading" process occurs every time a new bicycle enters our doors. By virtue of its existence as a commodity in the global marketplace, each bike that comes in for service is attached to a specific owner (even bicycles that have not been sold yet are referenced as being owned by the shop). No bike enters our shop alone. Following Appadurai (1986), all objects, by their very nature, are involved in the processes of social meaning making. The bicycle is no different. Its life as a serviceable object is entirely dependent upon its position within a specific social milieu. In the specific contexts of the shop, this necessitates that a variety of social interactions take place in direct reference to the bike. They occur in response to a need to appraise each customer, situate each bicycle socially, and discuss its attributes using the highly technical language of maintenance and repair. What has been read from the bicycle during this initial visual appraisal then become of central concern to the mechanic.

In addition to our needs as mechanics, the interdependent nature of the bike-rider relationship also necessitates this interaction. The bicycle is a reflective surface, defined and contextualized by the social inclinations of the social actors that appear around it. More specifically, the character of a particular bike is also defined by the way its owner chooses to present it. This presentation is reflected in the material qualities of the bicycle itself. Does the bike show extreme wear? Is it immaculate? Is it expensive? Is it cheap? Directly responding to questions like these, the personality of the owner emerges from within the features of the bicycle. Conversely, without the presence of an owner there to provide a bike with meaning and purpose, it ceases to exist as an object of repair or maintenance. It instead begins a new form of life: as either disposable junk to be discarded outright, or salvage, mined for its valuable constituent parts.

This reciprocally defining relationship is commonplace—it is present every time someone brings their bicycle into our shop. During our daily routines, Matt and I regularly endeavor to "read" the details of an owner through their bike. In fact, not to do so would be virtually unthinkable. It's a process that begins when the both the bicycle and the person attached to it are accessible to us. We require access to its physical features in order to interpret the bicycle effectively. Once within range of our senses, a visual appraisal of both the bike and its owner is set to occur. It is through this "reading" process, that the motivations of the individual and the meanings behind their bicycle's form are made legible to us. Armed with insight, we then work to construct a particular argument, develop our own perceptions, and frame an appropriate response to the customer we have just encountered.

Stepping back briefly from a macroscopic view of the bicycle's semiotics, as well as its potential to illuminate the vagaries and complexities of the human experience, the "languagelike phenomena" (Kohn 2013: 14) that characterize any effective "reading" of the bicycle must first be made tangible through example. Here, like any other bicycle-related interaction, the "reading" process is an integral step. To the mechanics of the shop, it is indispensable, aiding in the daily performance of our duties. Yet without concrete tangible examples to anchor it, its validity may yet be called into question. I therefore mobilize one particular example, to highlight the power of an insightful "reading" of a bicycle's *indexicality*. It is a particularly relevant example, as it highlights both the differences between each interlocutor as well as the ways in which we, the mechanics, respond to those differences.

That day, it rained like it never had all summer. Matt and I scrambled to pull tarpaulin over the rental bikes before their carefully lubricated parts were ruined by the downpour. We should have done this sooner, but the events of the previous hour monopolized our attention. A sudden rush of customers had forced us out of the back room, away from a large backlog of repair work. It was during this intense hour, that I handled the intake of four repair 'tickets.' These tickets are much like receipts. On them, we detail the extent and cost of the repair work that is requested by each customer. Much like the legally binding nature of a contract, these tickets serve to solidify the tenuous relationship between customer and mechanic. Customers just want to know that they are not being ripped off by the costs of repairs, parts, labor, etc. Conversely, we the mechanics, strive to appraise how much needs to be done. We want to ensure that nothing slips by our keen eyes. It's a time to make sure that if there is anything that is missing, broken, or out of order, that these factors are all listed and reflected in a total, agreed upon price.

On this hot, humid, and dreary day, one bicycle is particularly remarkable. It is a brand new Specialized "S-Works Venge." This eight thousand dollar bicycle is, by far, the most expensive object to come through the doors of the shop during my tenure. I took the bike to the back, and immediately set to work. The less time it spent in our care, the better. None of us wants to be held responsible for the well-being of this object for very long. After setting the bike up in the repair stand, I cannot help but envision the owner once more. Allen is a non-descript, young, white, male—the only remarkable thing about him was the tone in which he spoke to me. A subtle mix of condescension and disdain, he wanted some kind of assurance that we know what we are doing. In an effort to ensure that his bicycle is completely ready-to-go, Allen purchased our deluxe 'tune-up.' This sixty-five dollar package covers the maintenance and finetuning of all the bicycle's integral components. With his bike suspended by the stand up in the air, I begin to inspect its features. Looking closely at each component, there can be no doubt that it is a finely engineered machine. Being accustomed to heavy steel and aluminum frames, I find this particular carbon fiber frame unnervingly light. I also come to notice an "Ironman" competition tag stuck to the side of the frame; no doubt, the owner of this bike likes to participate in prestigious displays of athletic prowess. As Allen noted that he wanted his brake pads replaced, I remove the old ones carefully. Rummaging through the various drawers strewn about the back repair room, I look for the specific model number of these particular pads. As it turns out, they cost fifty dollars a pair, and he needs two sets.

At the same time I am diligently working to complete the requested service on the expensive bicycle, Matt is working on another. Our two bike stands, sit side-by-side in the backroom. As we pass each other to reach for tools, we take the time to remark upon our respective bicycles. His is a bicycle that has clearly seen some serious use. The rubber on its wheels is rotting away; a few spokes are bent; multiple brake lines are seriously rusted; the handlebar grips look like they have been gnawed upon. The bike is in terrible shape, but Matt assures me that its owner seems like a thoroughly conscientious rider. He had a moment to converse with him, and came to learn all about why the bike is in the state that it's in. This particular customer uses this bike for his daily commute from the Bronx into Manhattan. A young, twenty-something-working-man, Ben is a medical technician in the nearby hospital, located a couple of avenues away. Though Matt tells me that he doesn't seem to know anything about bicycles, Ben appeared genuinely concerned that his bike was beginning to fall apart.

The socio-economic disparity between Ben and Allen is nothing unusual. In part due to the geographic location the shop, we receive a very diverse array of customers, from all walks of life. Affluent locals, middle-class commuters, and poor, working-class deliverymen all visit regularly. The physical attributes of each bike that comes into the shop, function as a catalog of social meaning to the mechanics. In this instance, the observable features of these two very different bicycles each reference something particular about their owner. The one hundred dollars spent on brake pads was more than the total cost of repairs for the other, less expensive, bicycle. Allen's particular "Specialized," is a brand of bicycle that can be inconceivably expensive to own. Worth more than a couple months' of our measly mechanic's salary, keeping it properly maintained (as evidenced by the exorbitant cost of rubber brake pads) is also an expensive endeavor. This level of expenditure is indicative of an owner with significant financial means. The costs associated with the ownership of this bicycle are often far out of reach of the casual cyclist or everyday worker who relies on the bicycle to make a living. The amount of material investment that this object demands is substantial. If ownership of this bicycle denotes anything, it refers the fact that its owner must be both able and willing to pay for the privilege to own it.

In contrast, Ben's less expensive bicycle requires much less of him financially. The repair costs are negligible, when compared to the outrageously expensive components of the latter. However, much like the previous example, the physical features of this bicycle point to an array of carefull interpreted social meanings. In this case, the unkempt condition of this bike was "read" by Matt and I as indicative of a genuine love and care for his own possession. In part because of our own status—as people sharing more in common with Ben—we envision him as having a genuine stake in the bicycle world. As a corollary of his personal investment in the care of his bicycle, we are much more inclined to perform the repairs he so desperately needs. The bike transforms into a locus of translation; it is where, despite not knowing much of Ben's

background or personal history, we render him legible in the logics and language of the mechanic, and work to construct a particular argument about his character.

Through the diagnostic nature of repair processes like these, Matt and I are effectively "reading" the bike as text. In such instances, we are working to paint a picture of bicycle owners' moral sensibilities, attitudes, and general character. In this particular case—like many others the various features that define the bike's physical form are mobilized through description and interpretation rendering the personality of a specific bicycle owner legible to us. It's physical qualities emerge as a terrain, upon which moral arguments about its respective owner are subsequently made.

Though compelling in their appearance, one questions naturally arises: where do such claims find their authority? The interpretive nature of the "reading" process implies some degree of subjectivity. Everyone's take on the particular features of the bicycle may be different after all. Is there any objective truth to be had? And who then is qualified to make such claims about the social lives of bicycle owners? It is unequivocally the bicycle mechanic. A closer look at the linguistic and epistemological conventions that surround membership to this exclusive community will reveal that the expertise required in a bid for belonging, also confers authority and validity to the interpretative processes that surround the bicycle.

chapter one: mechanical epistemologies

Striding in with an exasperated look plastered on his face, Charlie hobbles in with a bike in one hand and a wheel in the other. This twenty-something, lithe, young bicycle messenger, is a regular customer in the shop. As a courier working for the Manhattan-based company "Snap Delivery," he often has jobs that bring him into the area. Stopping in during lulls of activity, Charlie occasionally takes a break from weaving in and out of the dangerous city traffic to chat with Matt and me about the highs and lows of his day. But today is different, and we notice it immediately. Without having to ask, it is apparent that an accident had taken place; Charlie's front wheel is bent almost beyond recognition—looking more like an avant-garde metal sculpture than a bicycle wheel. Luckily, the severely bent wheel is the extent of the damage (to both bike and body). Charlie had locked up his bike to a metal parking sign on the sidewalk, and a large delivery truck erroneously backed up onto it.

Much to our surprise, Charlie has carried his mangled bike over thirty blocks from the scene of accident, just to have us be the ones to assist him. Feeling a deep sense of camaraderie with a fellow bicycle enthusiast, Matt and I spring into action. In part, our connection with Charlie stems from the fact that he knows so much about bikes. Not only does he share our love for riding, as evidenced by his courier job—we notice his open mind, and the genuine interest in learning he has for anything bike related. Though he is not a mechanic per se, he seems to take excellent care of his bike, tending to its every need with care and affection. Despite being understandably distraught over the current state of affairs Charlie still has the presence of mind to tell us that he thinks that the wheel's axle and bearings are salvageable. Citing his technical knowledge, he asks if we would mind removing these still-functioning parts so that he can put

them to use in the future. Tools in hand, Matt and I set to work on the wheel. Before we can do or say anything, Charlie begins to speak: "I know they're still good. The wheel is brand new, and I just put some new grease in the axle and bearing compartment. I just don't want to waste some perfectly good hardware, you know? Even if the wheel's rim is shot to hell and the spokes are done. I know there is no way you guys can true the wheel again...even the tire lip is bent down. There's really no fixing that, is there? S--t, that wheel was as smooth as butter...thank god the tire is okay, those Gatorskin's are so goddamn expensive!"

Matt and I are taken aback by the extent of his knowledge, and the way he so effortlessly speaks about his bicycle and its many constituent forms. In an impressive display of knowledge, he has used all the right terms to refer to different parts of the wheel in question. It becomes clear to us that Charlie possesses a form of linguistic fluency and knowledge concerning the bicycle and its tools and parts, which only an experienced mechanic or dedicated cyclist might know. Yet, here it is found within a customer—a rare occurrence indeed. It then comes as no surprise when we learn that Charlie has worked as a bike mechanic for a couple of years, before turning to the lucrative courier market in search of higher wages and a more active lifestyle, outside the confines of a dingy repair shop. Thoroughly impressed by his keen eye, in-depth knowledge, and apt use of language to characterize his mechanical issues, Matt and I tacitly decide amongst ourselves that we are going to give him an entirely new wheel, free of charge. We do this because we value and respect, not only his interest, but also his knowledge and grasp of the bike's many complex material and conceptual forms.

Reverberating throughout this encounter, the proprietary forms of language used by the mechanic and the knowledge that emerge from it—integral factors at play within the social worlds surrounding the bicycle—are key to the power of Charlie's responses. Possession of these

linguistic skills, or lack thereof, are the prime indicators of belonging with regards to the social worlds of the mechanic—it designates those in the "know" and those outside of it. Through a precise accounting of the material qualities of his own bicycle, Charlie has precisely demonstrated his mastery over the terms and conditions of belonging within the exclusive social worlds of the mechanic.

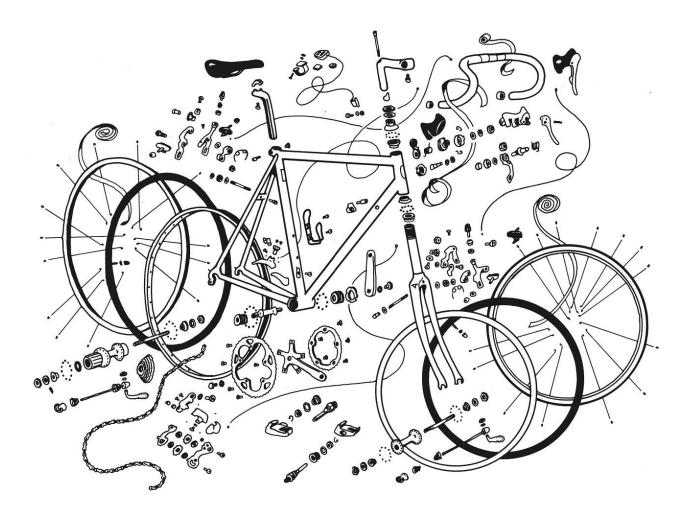


Figure 1. Exploded anatomical diagram of a modern "road" bicycle. Though not depicting any single bicycle in particular, this illustration presents a multitude of common, relatively standard, bicycle parts and their specific arrangements. A successful shop mechanic must become familiar with most, if not all of these parts and their specific role in the proper functioning of the bicycle.

Illustration by Todd Telander. Reprinted from Zinn & the Art of Road Bike Maintenance, by Lennard Zinn, 2013, Boulder, CO: VeloPress. ©2013 VeloPress, Boulder, CO.

In support of the bicycle's unique status to illuminate social contexts, I mobilize Charlie's specific example to uncover the epistemological frameworks at play within the role of the mechanic, as well as the linguistic conventions that inform the knowledge-making practices found within. My encounters with Charlie, and people like him, thus provide valuable information to those on the outside of "mechanic" culture. An analysis of situations such as these, as well as the local bicycle repair and maintenance practices that respond to them, clarify how technical knowledge, and the language that supports it, are used to cultivate the distinct bicycle-oriented culture of the mechanic found within the repair shop. One that is characterized by intimate knowledge of the bicycle's many physical parts and how one might go about restoring them to working order (see Figure 1). These situations also offer valuable insights into wider social contexts—many of the linguistic and epistemological processes at work within the mechanics' world are not exclusive to it; in fact, the conventions and practices at play within the shop have been appropriated from a variety of other social settings.

an appropriated language

Of particular relevance to the proprietary linguistic conventions that define the bicycle mechanic's world, is the assertion that the propagation of any linguistic system is predicated on the existence of a community of speakers who enforce its continued and proper use (de Saussure 1966: 76). The mechanics "language" and its associated knowledge base are no different. Forming the basis of Ferdinand de Saussure's treatise on the semiotics of language more broadly, this concept emerges within the specific linguistic and semiotic dynamics of the repair shop. Here, the relevance of particular objects within the mechanic's world is maintained through a set of shared linguistic and epistemological conventions, enforced with stern rigor. Without the presence of mechanics to uphold and sustain the lexical standards of this proprietary language, it

would cease to exist in any meaningful or recognizable form. In addition, the concepts, terms, and skills that make up the bicycle mechanic's "knowledge" should be understood in the following terms: as emerging out of mundane forms of language, appropriated from more widespread social and linguistic conventions.

This dynamic is important when considering the role of learning the "language" of maintenance and repair, so central to the role of the bicycle mechanic. Following the logic of Saussurian linguistic definitions, anyone seeking to learn the "lingo" of a bike repair shop must first become aware of the existence of an entirely new realm of linguistic signs outside of the everyday. The linguistic conventions at work here may be at odds with preexisting ideas, word associations, or forms of knowledge, employed in other, more common social contexts. Words and concepts like 'seating,' 're-threading,' 'tap-ing,' 'die-ing,' 'cross-tensioning,' 'truing,' or 'bleeding,' all have more common concepts and knowledge-forms associated with them. However useful these definitions are in everyday contexts, they take on additional, often radically different meaning within the context of the bicycle repair shop. For instance, the textbook definition of "truing," traditionally refers to "that which is fitted, formed, or that functions accurately with regards to a conformable to a standard or pattern."² However, in shop contexts it takes on an alternative meaning with regards to the bicycle, referring to the meticulous tensioning of spokes, following a distinct order and pattern, in an attempt to straighten out the metal rim and create a perfectly round wheel. It is a form of knowledge and action that requires skill, patience, practice, and above all, an understanding of how every turn of the spoke "key" will affect the outcome of the process as a whole.

² This is the textbook definition of 'truing'—"True." 2017. Merriam-Webster.com. Web.

The knowledge associated with terms like "truing," goes far beyond their mere definition in linguistic terms. Accessing the meaning of words within the shop requires familiarity with the specific knowledge process or concept associated with each word or object. Prospective mechanics must become fluent in a whole series of standard communicable and translatable linguistic signs, all of which are directly tied to tangible material objects (e.g. parts, tools, materials, etc.) and technical processes (e.g. truing, re-threading, bleeding, etc.) that surround those objects.³ The effective acquisition and demonstration of technical expertise is thus of particular relevance to those attempting to live and work as mechanics. Familiarity with the language of maintenance and repair is paramount to achieving success in these contexts—to know a lot about bikes means to have the ability to speak with technical precision. Yet, simply knowing the proper terms and patterns of speech most appropriate for each situation is not enough; also required is a comprehensive understanding of the *way* in which something works, and how a particular element relates to both the function bicycle as a whole, as well as the other parts that surround it.

A dominant mode of linguistic and epistemological praxis therefore prevails within the mechanic's social world. The fact that language is a "product of both social force and time," compels those seeking to identify themselves as mechanics to submit themselves to the linguistic and epistemological framework of the repair shop (de Saussure 1966: 76). One must learn the terms and signs of the mechanic's world, even if they conflict with their own prevailing habits of language or knowledge. Those seeking belonging within such private enclaves must wholeheartedly dedicate themselves to the process of mastering these signs and ideas. In

³ Tangentially related to this point, the enigmatic "Sheldon Brown" website is a valuable resource for mechanics (even those with a substantial knowledge base). Containing thousands of highly technical articles, diagrams, definitions, and tutorials, this website provides its readers with an encyclopedic catalog of mechanical expertise. For examples of the resources I refer to here see: *www.sheldonbrown.com*

addition, the semi-standardization of the bicycle's form, a product of various market processes within a highly industrialized neoliberal marketplace, mean that the meanings and language associated with parts, tools, and the processes tied to them transcend local boundaries. The array of semi-standard physical parts and tools associated with repair and maintenance work, demand an equally standardized language with which to reference them. It is within this standardized linguistic and epistemological frame, that mechanics from one social context are able to interact with a bicycle manufactured on the other side of the world with ease. The mechanic's social world thus transcends the boundaries of each individual shop—it is a world in which anyone, properly educated in the prevailing conventions of repair and maintenance, can move in and interact with freely.

shop talk

The ability of mechanics to transcend localities has its roots in the rigorous policing of a proprietary language, as well as its continual scrutinization by users deemed "expert" or "proficient." In the context of these specific linguistic and epistemological conventions, the notion of a "legitimate language" becomes especially relevant. Although the sociologist Pierre Bourdieu (1991) situates his claims in relation to the French state, and its reproduction of an "official language"—I move to make a similar claim concerning language within the social worlds of the bike mechanic. Before any comparison can be made, I must first note a crucial difference between these two examples. Unlike Bourdieu's case, there is no authoritative "state" entity working within the mechanics' world to determine what is "official" and what is not. In the contexts of the bike shop, the mechanics hold this position of authority. However, the language deployed by individuals fulfilling their role as mechanics, function in much the same way as an "official" language does within the wider political circumstances of eighteenth-century

France. In the repair shop, as in France, the mechanic's language "becomes the theoretical norm against which all linguistic practices are objectively measured" (Bourdieu 1991: 45). Much like the normative linguistic expectations imposed upon state subjects in Bourdieu's example, anyone seeking to gain entry into the social worlds inhabited by the mechanic, must demonstrate their proficiency through the understanding and subsequent use of a range of appropriate terms and concepts.

Inspired by Bourdieu, "concepts" function here in much the same way as does the Peircian and Saussurian linguistic sign; proper comprehension of the terms and concepts that form the basis of a mechanic's knowledge, must be demonstrated and appraised by a trained and knowledgeable community of speakers. Within Bourdieu's theoretical framework, accordance with or divergence from the dominant mode of linguistic practice is therefore indicative of the social status of its bearer. Proper adherence to a set of socially determined linguistic conventions confers its user with a measure of "symbolic capital," which can then be mobilized in pursuit of a socially advantageous position (Bourdieu 1984: 291). Yet, the social advantages conferred by the effective acquisition and deployment of this knowledge rarely extend beyond the social worlds of the mechanic into other aspects of life more generally. Mastery of the technical nuances of maintenance and repair, though itself a hard-won achievement, are not easily recognized by others outside of the relatively closed social enclaves of the mechanic.

Despite this, those who demonstrate a high level of proficiency with preexisting semiotic and linguistic conventions of bicycle maintenance and repair are given special status within a global community of mechanics. In addition to its ability to demarcate individuals as "inside" or "outside" a dominant mode of discourse, its association with the rather difficult acquisition of particular skills and knowledge also effectively transforms it into a "language of authority" (Bourdieu 1991: 48). Because its attainment is not a trivial task, those individuals purporting to belong, come under intense scrutiny by members of the bike mechanic community who are already well versed in the prevailing linguistic conventions of bicycle maintenance and repair. In such cases, they must demonstrate their ability and prove their knowledge in much the same way as Charlie has—by mobilizing proper terms and concepts in reference to a particular physical condition.

After his impressive display of technical expertise, Matt and I welcome Charlie into the back repair room. This space is our sanctuary within the shop. Its walls are full of tools, the ceiling hangs with wheels, tires, and rental bikes (see Figure 2). The floor is an oil stained plywood mosaic, marred by the strenuous nature of our everyday toil. Though it is grungy and



Figure 2. Back room of the shop. This part of the store is where Matt and I spent most of our time working. It features a whole wall of tools, worktable, two bike stands, a compressed air pump, numerous rental bikes and tires hanging from the ceiling, as well as an entire wall of drawers and the door to an outside storage area (not pictured). *Digital photograph, by author*, ©2016.

poorly ventilated, to Matt and I this is the most important area of the shop. It is where we have absolute control—where we exercise our power and demonstrate our authority. As such, everyday customers are rarely allowed to enter. The few who trespass into this space uninvited usually meet with our intense scorn, followed quickly by an immediate command to leave. It is a space fraught with tension, where entry is conditional. Access is granted solely by invitation, and offered only when an individual properly establishes their proficiency and skill. Through an apt use of language, referencing an appropriate knowledge base, Charlie has demonstrated that he understands bicycles in way that surpasses the common bystander. He has earned our respect and proven his worth to us. Charlie gains entry through his possession of substantial technical knowledge, proper implementation of language, and apt use of the normative social conventions that surround the mechanic's life in the shop.

As Charlie is a positive example of—a proficient, working knowledge of contemporary repair shop conventions can only be gained by the acquisition of a commensurate understanding of the prevailing linguistic conventions used in contemporary manifestations of mechanics' language. Without the accompanying linguistic framework to describe and understand the technical practices associated with maintenance and repair, one is helplessly adrift within this world. The highly technical knowledge necessary to complete a repair and maintenance task within the shop is only achieved by adopting the linguistic signs—appropriated from wider contexts—that have been put to use a repair shop setting. To talk "shop" means to speak about bicycles with other mechanically minded individuals who are similarly familiar with in the signs, words, meanings, and concepts relevant to bicycle maintenance and repair.

The linguistic conventions used in reference to each tool, part, or object in these contexts, is directly tied to the learning experience of any prospective mechanic. Adhering to the normative expectations of other, usually more senior, mechanics is just about the only way to access many of the more esoteric aspects of technical bicycle knowledge. Mastery over the intricate, technical details of bicycle repair and maintenance is thus obtained through long arduous hours of contact with other mechanics, under laborious conditions in a repair room. A product of this unique space, it is under such strenuous conditions that the formation of a particular subject takes place.

the embodied subject

In support of my claims regarding the ways in which linguistic and epistemological conventions are mobilized within bicycle repair shop contexts, I turn to an ethnographic analysis of specific shop-based ideologies and practices of participation. Focusing on the dynamics of a small community bike shop in California, Lynette Arnold (2013: 137) analyzes the ways in which the "embodied subjectivity" of particular individuals, fulfilling locally prescribed roles, comes to be defined in reference to specific forms of engagement with the act of bicycle repair. Here, an individual's status is defined by the quality of their participation in locally defined linguistic and epistemological conventions. Spaces like these, with an "explicit ideology of participation," work to create a certain kind of embodied subject—one defined by proper participation in "normative modes of engagement" and adherence to "the specifications of a local ideological norm" (Arnold 2013: 137-8).

Indicative of processes occurring within the contexts of the specific repair shop of Arnold's ethnography, these factors confer certain individuals with authority and expertise. They delineate roles of student and master, insider and outsider, and circumscribe the features of a distinct shop "ideology"—one concerned with the continual demonstration of adherence to prevailing linguistic and epistemological modalities. The normative cultural ideas circulating within these contexts are given form and meaning through their continued use by members of the community in which they operate (Arnold 2013: 139). Legitimate participation in shop activities, along with a commensurate linguistic and technical understanding of bicycles are what define the features of a particular "embodied" subject-hood.

The way I feel, the way I move, the way I speak, the way I think. All of these factors constitute my own identity within the shop in which I work. I am this peculiar embodied subject. Mastery over the nuances of "shop talk," constitutes me as an important subject in the world of the mechanic. Through proper performance of the linguistic and epistemological conventions that prevail within repair shops more broadly, I demonstrate my own identity as a bicycle mechanic to others. Active participation with the language of maintenance and repair continually inscribes me as a member of the mechanic community-reinforcing my position, as one of authority and expertise. In an act of reciprocal definition, my legitimate participation in the spaces (conceptual and physical) of the mechanic is what comes to define me, while it is simultaneously my identity which demands proper participation in the normative practices that circulate in these spaces. Here, the language of maintenance and repair is more than "just a language." It forms the basis of a much larger system that actively creates and shapes a certain kind of person. The linguistic conventions of the shop intersect with normative guidelines about ways of thinking and understanding. In this intersection, and in response to a dominant mechanic ideology, is where a distinctly "mechanic" subjectivity emerges. Proprietary language, combined with codified ways of thinking and doing, have come together to construct my identity as a professional bicycle mechanic.

Yet, it is in thinking through the peculiar nature of this subject position that I also move to make claims about the social lives of a variety of people in relation to the bicycle. Here, the insights I bring to class and identity politics more broadly emerge from my tenured status as a bicycle mechanic, and as one who has learned most of my skills through hands-on experience in a repair shop setting. As an informant with membership to a distinct culture, and with the embodied subjectivity that such belonging offers me, I have special insight into these social worlds. Through my own active participation in these specific contexts, and the understanding that such familiarity entails, I can more effectively represent the complexities and nuances of the bicycle mechanic to those on the "outside" of this social world. The claims made about the various people throughout this project may at first seem like off-hand, unfounded assumptions to some readers. However, it is through my own specialized position as an embodied subject, with belonging in a particular social world, and years of training in the nuances of the bicycle's physical form, that my analyses find their validity and authority.

chapter two: a historical genealogy

To make the claim that the "reading" of the bicycle has importance within contemporary social dynamics, it becomes necessary to trace the appearance of this particular phenomenon up through the past. Its power within the social interactions of the present, are not spontaneous in their manifestation—they are historically situated, born out of the social worlds that existed around the bicycle during its birth. The social dimensions of the bicycle, a concept at the heart of this project, are therefore coterminous with the appearance of the bicycle itself. To delineate the manifold of ways in which the bicycle intersects with the lived experiences of people in everyday life, I must therefore establish both when, and where, the story of the bicycle begins.

The modern conception of a bicycle as outlined at the start of this project, although ubiquitous today, has gone through a variety of iterations throughout its lifetime. Pedals, chains, pneumatic tires, among many other characteristics most commonly associated with contemporary bicycles, were notably absent in some of the modern bicycle's progenitors. Though a hotly debated topic, many scholars point to the beginning of bicycle history with the invention of the *Draisienne* in 1817; others reference the V*élocipède* of the mid nineteenth century as a more appropriate place to trace its inception; still others see the many *safety bicycles* of the late nineteenth century as the most representative form (Wilson *et al.* 2004). Aside from its contentious historical genealogy, general consensus has readily conceived of the bicycle as a machine with two wheels joined by a frame, a steering device, a brake, and pedals—a basic design based on principles and technology established but not fully realized in the *Draisienne*, and subsequently perfected in future iterations.

The many manifestations of these "proto-bicycles" in the nineteenth century, varied widely in both their appearance as well as their mechanical operation. Despite all of their divergent qualities, all of these machines had something in common: their unique technological form held enormous potential to the growing industrialized societies of the world. To those who came to witness it, and even more so for those privileged enough to ride it, the bicycle was an emblematic expression of the technologically innovative character of the times (McCullough 2013; Wilson *et al.* 2004; Toohey *et al.* 2012; Ingram 2015). Capturing part of the spirit of the industrial age, it did not take long for the bicycle to spread around the globe. Those lucky enough to gain firsthand experience the bicycle remarked upon its revolutionary social potential:

Together, the novelty of the bicycle, the thrills it offered, the sociability it inspired, and the possibilities it suggested in regard to the transformation of human mobility ensured that it would be a point of spectacle and performance, and would in turn become emblematic of modernity, liberalism, and freedom. (Ingram 2015: 127)

Even before its wider adoption by mass audiences, the bicycle's importance to the individual and society more broadly was apparent. Due in no small part to the powerful technology it put into action, its status as an object of importance in social contexts only grew larger as time went on.

Notwithstanding the variegated and diverse physical appearance of the bicycle during the nineteenth century, something crucial could be found in every iteration: riding required a great deal of skill and coordination, and even then, they were still dangerous to ride. A so-called "romantic era" of cycling saw the formation of exclusive, military-style cycling clubs, replete with dress codes, and rules of decorum, exclusively attended by the wealthy elite of society (see Figure 3). Revolving around the "sport" of bicycle riding, the constituents of these clubs sponsored group activities with, including tours, parades, races, and social events. It was a period where the aptly named "high-wheel," also known as the "penny-farthing," or the "ordinary"

bicycle, reigned supreme (see Figure 4). In these contexts, "the number of riders was relatively small...mostly men athletic and daring enough to master the machines and able as well to afford their hefty prices, ranging from \$100 to \$150 depending on size and finish" (McCullough 2013: 54).⁴ Understandably, the enormous cost, and specialized manufacturing associated with the various bicycle styles of the mid-nineteenth century, restricted its accessibility to the working class populations of Western industrialized nations.



Figure 3. "High wheel" bicycle club. This photograph of bicycle club members in uniform, offers a sense of the elite, exclusive, and militaristic nature of cycling during the era of the "high wheel" bicycle. *Photo Unknown Photographer, circa 1885* ©2003 Wichita-Sedgwick County Historical Museum

⁴ Adjusted for inflation, these bicycles would have cost the average American the equivalent of three- to four-thousand dollars in the current market (2017).

Its steep price and limited scale of production also meant that, until the later years of the nineteenth century, the bicycle was fell under the exclusive purview of wealthy and powerful social elites (Wilson *et al.* 2004; Stoffers 2012: 107). Thus far, the bicycle had been used primarily by "well-to-do people for commuting and shopping...for sport and for weekend and vacation travel." Additionally, while the bicycles of this era "conferred unimagined freedom on its devotees, [they simultaneously] engendered antipathy on the part of the majority who didn't



Figure 4. The ordinary, or high-wheeler, or penny-farthing. This style of bicycle was most prominent during the mid-nineteenth century. *Reprinted from Bicycling Science (p.19), by David Gordon Wilson, Jim Papadopoulos, and Frank Rowland Whitt, 2004, Cambridge: MIT Press.* ©1977 *MIT Press, Cambridge, MA.*

or couldn't bicycle. Part of the antipathy was envy. The new freedom and style were restricted to rich young men" (Wilson *et al.* 2004: 19-26). Inheriting the associations and characteristics of those who used it most predominantly, the general public saw the bicycle as existing within socially exclusive patterns of bourgeois consumption, far out of reach to the common individual. Although many looked upon the bicycle with excitement and wonder, the social circumstances of its invention and subsequent restricted proliferation, made interaction with the bicycle difficult outside of settings strictly regulated by wealthy elites of the "leisure class."

In addition to its enormous financial cost, the prohibitive physical dangers associated with riding a bicycle did little to attract new ridership or enable a more equitable culture to emerge with relation to bicycle riding and ownership. Characteristic of the "high wheel" bicycles that defined the so-called "romantic" era of cycling, a rider's center of gravity was positioned precariously forward and high above the saddle. If the bicycle stopped abruptly or hit an obstacle, the rider would undoubtedly fly headfirst over the handlebars, with little opportunity to use their legs to break the fall (Guroff 2016: 98; McCullough 2013: 54). The dangerous nature of its design pushed many cycle designers to devise a safer alternative by pushing the center of gravity lower, and further back behind the handlebars. Those already acquainted with the cycling world, aptly came to describe these new designs as "safety" bicycles.

Although many different—somewhat comical designs—emerged, aimed at tackling the safety problems of previous bicycles appeared during this period, one in particular stood out among others. It is a design which can be seen in most modern bicycles throughout the world today, and employed "two wheels of equal size, joined by a frame with the seat mounted at the frame's center, a pedal crank and chain sprocket at the bottom bracket of that frame, and a chain sprocket mounted on the rear wheel" (McCullough 2013: 55). With the later addition of a diamond-shaped frame and pneumatic rubber tires, the modern bicycle had officially arrived (see Figure 5). The "safety" bicycle, in its many forms, spurred on a distinct shift in the social aspects of cycling, one that continued into the later decades of the nineteenth century; the bicycle was undergoing a radical social transformation, from a whimsical diversion for the wealthy into a powerhouse of utility, mobility, and personal freedom for the masses.

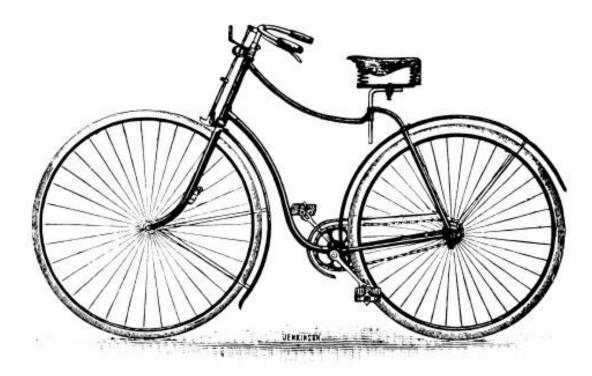


Figure 5. "Starley" brand safety bicycle. This style of bicycle, the progenitor to modern bicycle designs, was the first of its kind. Ushering a new era in bicycle use throughout the world, its design was safer and easier to use than previous iterations.

Reprinted from Bicycling Science (p.25), by David Gordon Wilson, Jim Papadopoulos, and Frank Rowland Whitt, 2004, Cambridge: MIT Press. ©1977 *MIT Press, Cambridge, MA.*

As their accessibility increased, bicycles were widely perceived by their new public audiences as one of the most representative and important technological innovations that had emerged out of the rapid industrialization of the nineteenth century. Moving into early years of the twentieth century, the bicycle as an important technological innovation was gaining purchase with wider, often poorer audiences. This change was a direct consequence of the proliferation of newer design features—found in this era of the "safety" bicycle—which became sought after over the more archaic and inefficient machines of previous decades (Moore 2011: 265). The widespread production of these newer, safer, and more affordable bicycles could be found in industrialized cities and towns throughout the industrialized nations of the world. With sublime elegance and simplicity, these new mechanical arrangements found growing popularity among the working-class populations of Europe, North America, Australia, and New Zealand moving into the turn of the century.

To these growing "working class" populations, the bicycle had historically represented the freedom, status, and prestige of its former owners—all the accoutrements of wealth and power. This fact, coupled with a steep drop in prices, propelled a rapid increase in the number of bicycle owners in the industrialized nations of the world (McCullough 2013). Amounting to a paradigm shift in the status of the bicycle within wider social contexts,

The 'safety' bicycle precipitated a rapid and nearly complete transformation of cycling beginning in the late 1880s and reaching its greatest success by 1895. By then the bicycle had become a liberating mode of travel for everyman and everywoman, useful to wage laborers and members of the leisure class alike. (McCullough 2013: 55)

Moving away from its association with exclusive cycling organizations and elite society, the bicycle was becoming a technological innovation that everyone could enjoy. The ease and

accessibility of newer designs meant that more and more people sought a chance to experience the technological power of the bicycle.

maintaining the status quo

With the rise of this working-class trend within the industrial nations of the world, upperclass elites were beginning to feel threatened. Ever since its appearance, the bicycle had existed solely as an object of prestige and privilege. However, as the turn of the twentieth century approached, its definition was beginning to shift. Those who had once held a monopoly over the very definition of the bicycle in social contexts, felt uneasy about the turn towards more egalitarian models of bicycle ownership. Amounting to a subtle form of "class warfare," those with wealth and power sought ways to use it to maintain their hegemonic grip on the bicycle, and publicly distinguish themselves from the rest of society (Moore 2011: 265; Toohey *et al.* 2012: 439). I therefore turn towards a historical analysis of New Zealand "cash amateur" cycling, to illuminate the ways in which inter-class tension manifested itself through the bicycle.

It is here, at the turn of the twentieth century, that the question of so-called "amateur" status became a hotly debated topic between the members of prestigious bicycle clubs within New Zealand. The term "amateur" in these contexts, does not imply a lack of skill; rather, it is defined as a person who engages an activity for pleasure rather than for financial benefit or professional gain. In line with this sense of the word, the issue of financial benefit is exactly what caused a rift in the exclusive cycling communities of New Zealand cities like Auckland, Wellington, and Christchurch.

One schism is of particular importance, that between the rival New Zealand Cyclists' Alliance (NZCA) and the League of New Zealand Wheelmen (LNZW). Their disagreement arose from a question of how to officially define and regulate the participation of individual bicyclists in reference to organized bicycle racing. To begin with, these two clubs envisioned the ideal "amateur" as "educated, engaged in quasi-gentlemanly business and practising a number of sports in his leisure time" (Toohey *et al.* 2012: 436). This was in line with the prevailing attitudes of the era, where bicycling was envisioned as an appropriate activity exclusively for members of the wealthy "leisure class." Although it is tempting to explain the schism exclusively in terms of social class, "with the Alliance exemplifying middle-class hypocrisy over money and the League representing a more straightforward working class honesty" both organizations were filled with "predominantly Anglo-Celtic and exclusively male" members (Toohey *et al.* 2012: 435). It is clear then, that ideological division between these two groups did not lie in the racial or ethnic makeup of their respective clubs. Neither was it a form of class-warfare, enacted through the action of officially certified sports clubs; instead, this was a battle over the notion that cash prizes would lead to a deterioration of the established social order.

Ostensibly, the public face of this debate was focused on making an official declaration as to whether or not cash prizes were a suitable prize offering for the growing number of highly competitive public bicycle races being held throughout the country. To those involved in this debate, this argument was a simple one, meant only to clarify the regulations that govern cycling more formally and set precedence for future action. However, the root of the anxiety that cycling club members felt about the status of cash prizes in organized cycling had its basis in a more insidious desire to maintain definitive class distinctions. To the constituents of these clubs, and hundreds more across the industrialized nations of the world, cycling was thought of as a gentleman-like "sport"—akin to activities such as golf, tennis, or equestrianism. In the minds of the wealthy "upper-class" elites who participated in them, "sport translated into considerable social and cultural capital" (Ingram 2015: 130). It was one entry in a long list of activities, accessible only to the privileged and wealthy. Proper participation in the "sport" of cycling, conferred status, prestige, and allowed for the public acknowledgement of social position by others.

Despite taking opposing positions in this debate, both the NZCA and the LNZW fought against the deterioration of their club's "prestige" in their own ways. At first glance, it might seem antithetical that the LNZW—an exclusive, elite club—would be in favor of cash prizes at cycling events. However, to those in charge, the amounts given away as awards were necessary to sustain their regular members. The costs they incurred as a result of membership to the LNZW and its participation in racing events were offset by the financial rewards that a racing victory offered. Despite protestations from other clubs like the NZCA, these awards were envisioned to be a necessary and integral part of bicycle racing culture.

Adding to the anxiety felt by the constituents of elite bicycle clubs, it is also important to consider that this particular debate in New Zealand coincided with the wide proliferation of a variety of "safety" bicycle designs. As previously noted, bicycle ownership was rapidly becoming a more financially feasible endeavor to those with less advantageous economic means. In the eyes of the exclusionary elite, this meant that cycling was also becoming more accessible to people with a lack of social "status" or "prestige." Many in both the LNZW and the NZCA were wary of the growing number of so-called "maverick" cyclists, who came from a "lower" class, and who were purchasing bicycles, winning races, and upsetting the status quo.

Despite the force of a democratizing trend in general ownership that was sweeping the cycling world, bicycle racing was a completely different environment. The newest and most innovative bicycle technologies, designed to give riders an edge in competition, required a

considerable amount of financial capital to obtain. The long-term financial burdens of serious bicycle racing were not insignificant. These steep costs were not just an inherent quality of the "sport" itself. The inability to afford expensive technologies, coupled with a lack of leisure time in which to use them, sustained a wider effort to exclude members of the "working class" from following cycling as a legitimate sporting interest. In the context of bicycle racing, the agenda of these clubs becomes clear when considering the following:

There was not, then, a universal movement to drive down the cost of competing in all sporting activities. In fact, the opposite is true: expense conferred upon sport the function of maintaining social division. (Toohey *et al.* 2012: 439)

In the case of the bicycle as "sport," there was concerted effort by those in positions of authority, to ensure the continued existence of their own particular social formations. To those who championed the ideal "amateur" as an aristocratic gentleman—who performed daring athletic exploits atop a bicycle—cash prizes posed a considerable threat to the existing social order. Uncovering the confluence of hidden economic and societal forces driving this debate, it is clear that these clubs were engaged in a concerted effort to maintain the status quo. Although such desires were never made explicit in documents or public pronouncements, the awarding of cash prizes undoubtedly posed a threat to the hegemony of clubs throughout New Zealand.

an alternative approach

Sharply contrasting the debates surrounding the bicycle in the contexts of more European societies such as New Zealand, a careful study of Japan's adoption of the bicycle proves equally insightful. The particular way in which members of Japanese society approached the bicycle differs in many key respects from the debates plaguing the cycling clubs of New Zealand. Instead of focusing on the perceived social dangers posed by the equalizing potential of the

bicycle, as demonstrated by the elite cycling clubs of New Zealand, the Japanese state focused its gaze firmly on the immense social and economic potential that the bicycle seemed poised to offer the nation. Adopting a much more egalitarian stance with regards to the bicycle, the Japanese government's involvement stemmed from a complete reversal of isolationist laws and policies that had dominated previous eras. People all over the country sought to adopt the style, tastes, and technology of the industrialized nations of Europe and North America; in this pursuit, the bicycle was key. Amidst a wave of modernization, industrialization, and so-called "westernization" sweeping the nation during the late nineteenth century, the bicycle was representative of the burgeoning presence of industrial technology within everyday life.

For much of the nineteenth century, Japan was experiencing radical shifts in its social, economic, and political structure. It is here that the bicycle finds purchase in a nation hungry for all the trappings of "modernity." However, beginning with its inception after the Meiji restoration of 1868, the bicycle was owned almost exclusively by the social elite. Like much of the rest of the world during this period, the bicycle enjoyed "a heightened visibility as the status symbol of the wealthy and leisured classes" of Japan (Steele 2010: 182). Mirroring the cycling organizations of countries like New Zealand, the first Japanese bicycle clubs attracted a very specific clientele, one focused on displaying their wealthy and privilege through their ownership of the bicycle. Much like their European and American counterparts, Japanese elites were eager to utilize the bicycle as a symbol of status sui generis.

Although this kind of social relationship to the bicycle continued to thrive in the aristocracies of Europe and North America, it would not survive long in Japan. By the turn of the twentieth century, the bicycle was beginning to be perceived in an entirely different light. To the Japanese state, the bicycle offered many advantages: increased speed and distance (bicycles were

faster than horses and a rider could traverse many miles quickly without tiring); promoting health (bicycle riding provided excellent exercise); its convenience and economy (bicycles enabled people to save time and money) (Steele 2010: 186). These features, along with the transportation needs of a growing number of industrial laborers and skilled workers, worked to quickly change the bicycle from a marker of status for the rich elite, into a reliable tool for the masses. This unusual development was all thanks to the unique stance that Japanese society took in relation to the bicycle. Particularly important was that, "among the Japanese community, bicycle use was spearheaded by government, business and military leaders eager to take advantage of the savings in time and money that the bicycle offered" (Steele 2010: 185). Unlike processes occurring in the cities of Europe, North America, Australia, and New Zealand, here, the bicycle was employed to empower, free, and mobilize the working class. Its benefits for the entire society were not stifled in favor of efforts that sought to maintain definitive hierarchies of "class" and "status."

As all of these factors combined, Japan came to surpass many other nations in its effective integration of the bicycle into society. By the end of 1925, there were over four million bicycles in Japan, leading the Japanese Ministry of Commerce and Industry to declare Japan as the "foremost bicycle country in the world" (Steele 2010: 192). This unprecedented growth in ownership was indicative of how well society had embraced the promise and possibility that the bicycle offered. So it would happen that increased mobility—had in turn—led to a marked increase in overall economic and social production throughout the nation. Even in the face of steep "bicycle" taxes, which imposed yearly fees on ownership, the bicycle brought enormous prosperity to Japanese society (Steele 2010: 192-3). A "working class" empowered to travel around freely on their bicycles, was one that could better support burgeoning urban life and a growing industrial economy. Here, the bicycle made freedom of movement an indispensable

right, welcomed by farmers, industrial workers, and members of an emergent urban "middleclass" alike.

Differing greatly from the social dynamics at play in the industrialized nations of Europe and North America, Japan offers a unique glimpse into what an egalitarian embrace of the bicycle can look like within wider social contexts. In contradistinction to the actions of elite New Zealand bicycle clubs, the effective employment of the bicycle towards the needs of society in the Japanese context, demonstrates what an alternative stance to the bicycle looks like (see Figure 6). Yet, beyond the scope of Japan or New Zealand, the bicycle has wider implications for societies and cultures the world over. I have mobilized two very different societal contexts, in the hopes of effectively demonstrating the unique power of the bicycle to transform entire societies and nations. The ways in which the bicycle has historically intersected with class and identity politics, provide important precedence supporting a claim of the bicycle's special potential within contemporary social contexts. In looking to the past, we see that there is a powerful relationship between society and the bicycle, and through close examination of its historical use and meaning, it also becomes clear that it is a global phenomenon.



Figure 6. A bicycle "parking lot" in present-day Tokyo. Even in an age dominated by the internal combustion engine, the bicycle has a central role in lives of everyday commuters. With the total number of bicycles estimated to be over 70 million, Japan is host to one of the largest bicycleriding communities in the world. ©2013 Naomi Pollock.

contemporary bicycle society

Occurring contemporaneously with the social changes occurring in Japan and the interclass conflicts within New Zealand, the burgeoning popularity of the "safety" bicycle (in all of its forms) within the industrial nations of Europe and North America, brought with it an enormous shift in the demographic makeup of those who came to use it. Despite global efforts to restrict and suppress widespread bicycle ownership by wealthy elites, the working class' use of the bicycle was continuing to increase well into the beginning of the twentieth century (Moore 2011: 265). Because of its historical associations with prosperity, athleticism, modernity, mobility, and freedom, the bicycle enjoyed wide appeal, despite opposition. With its widespread use at the beginning of the twentieth century, the bicycle, and all of its accompanying technologies, was preeminently positioned to affect radical change in many different levels of society and culture (Guroff 2016: 102). Unfortunately, for those living within the industrialized nations of the world, its enormous potential was offset by the emergence of the internal combustion engine. Its invention gave swift rise to new technologies like the automobile and the airplane: modes of transportation that inspired new and more powerful feelings of modernity, liberalism, and freedom (Ingram 2015: 127). Though financially out of reach to all but the most wealthy individuals, the automobile quickly captured the public's imagination, becoming a new locus of social interaction. Technologies such as the automobile and the airplane were faster, more complex, and could transport an individual much further than ever before. These features combined to position the automobile as not only the dominant form of transportation in the twentieth century, but also as the locus upon which the object-based "class warfare" of the bicycle was to continue.

With the advent of these more complex technologies, the bicycle took a secondary role. That is not to say that ridership disappeared completely, as the working class still found its use immensely rewarding and essential to their livelihood; however, the excitement and wonder that characterized its heyday in the late nineteenth century had all but vanished. Petroleum based transports, and the engines that powered them, were becoming more and more popular throughout the industrialized world. This trajectory would change briefly however, towards the middle of the twentieth century, overshadowed by the specter of the Second World War. The newly emergent social potential of the automobile was challenged by the global socio-political upheavals of the late-1930s and early-1940s. Pressed into service by the material needs of war, the use and distribution of petroleum in civilian contexts was strictly restricted throughout those nations engaged in large-scale conflict (Wilson et al. 2004: 26). Due to a severe lack of fuel resources for civilian petroleum engines, the number of bicycle riders during this period saw a sharp increase. Vast populations of working class Europeans, already excluded from automobile ownership on the basis of financial standing, sought an alternative method for traveling to and from their wartime occupations; once again, many turned to the bicycle as a transportation solution par excellence (Moore 2011: 265; Wilson et al. 2004: 26). Here, in the midst of a global war of unprecedented scale, the historical associations between bicycle ownership and class status were also suspended indefinitely.

Embodying this drastic increase in ridership like nowhere else, Sweden's bicycle population reached its highest in the middle of the Second World War. Though there were thousands of automobiles in Sweden at the time, this inter-decade period saw cycling rates climb to astonishing proportions. At one point in the early-1940s, over 70% of the traffic in Sweden consisted of bicycle travelers (Emanuel 2012: 67-8). The roads and arteries of Stockholm (Sweden's largest city) were clogged with riders nearly every day (see Figure 7). In these contexts, the bicycle took on an integral role in supporting the Swedish economy, during some of the most austere economic conditions ever seen. Both before, during, and after the war, the bicycle performed an important utilitarian function: it was used extensively to transport both people and goods throughout the nation (Emanuel 2012: 71). In this sense, the bicycle was being redefined from within the wider contexts of Swedish society, from a tool for leisure and relaxation, to an economic workhorse. This changing attitude paralleled the societal shifts that



Figure 7. Peak-hour bicycle traffic at Kornhamnstorg in central Stockholm, Sweden in 1946. According to the "Generalplan för Stockholm 1952" (The 1952 Master Plan for Stockholm), during the summertime, some of the main arteries in the inner city contained five times as many bicycles compared to cars, while bicyclists took up half of the total street space.

Reprinted from an article in the Journal Of Transport History 33 (p.75), by Martin Emanuel, 2012, Manchester University Press. ©Lennart af Petersens, Stockholm City Museum.

had occurred in Japan nearly a half century ago. Through its widespread use, members from all classes of Swedish society came to envision the bicycle as an essential tool, aiding their wartime economic survival.

As in Sweden, the bicycle's role was integral in many societies during this harsh wartime period. However, following the end of the Second World War in 1945, a widespread decline in bicycle use throughout the industrialized world appeared once more. Post-war peace had brought about unprecedented levels of prosperity throughout the allied nations. Industry, commerce, and trade boomed. A newly emergent middle class, made increasingly wealthier through the exponential growth of industry and commerce, was eager to own the automobile. Akin to the way the bicycle had been seen during its heyday in the nineteenth century, the automobile had now become a major marker of class distinction (Emanuel 2012). As newly minted objects of social prominence, automobiles of all shapes and sizes were beginning to perform the complex social functions that had once been occupied by the bicycle: both as objects of unrivaled utility and preeminent displays of wealth and power. In the new post-war era, the purchase of a finely crafted automobile did far more than the bicycle could to cement the social status of its owner. If the bicycle embodied the essence of the nineteenth century, then the twentieth century indubitably belongs to the petroleum-driven automobile.

Despite its increasing obsolescence relative to the automobile's meteoric rise, the bicycle continued to play an integral role in the industrialized societies of the world moving into the later years of the twentieth century. As such, its importance continues to be seen today. The introduction and subsequent spread of cycling throughout the globe, has left an indelible mark, having a substantial impact on the lives of millions of people (Stoffers 2012: 99). I therefore make the claim, that despite unrivaled competition from the revolutionary technologies presented

by the automobile, the bicycle has always played—and continues to play—an important role in the formation and expression of a diverse array of social politics. In following a variety of different social contexts, the importance of the bicycle as an object of social concern becomes clear. From Japan, to New Zealand, to Sweden, and beyond, its long historical genealogy, as an object so closely associated with class distinction and identity politics, has not vanished with the passage of time. It has merely been obscured by the rise of the automobile, and the global proliferation of material commodities that fallowed the end of the Second World War.

Only recently—during the bicycle "boom" of the 1970s (Stoffers 2012: 98; Wilson 2004: 27)—has the bicycle reemerged, as an object of profound social importance. In this era of post-Fordist economic dynamics, the bicycle has once again assumed a premier role in an array of social contexts. The widespread proliferation of different brands, styles, and designs, in contemporary contexts undoubtedly make the contemporary social experience of bicycles more complex than ever before. I have therefore mobilized a portion of the bicycle's social and historical genealogy towards clarifying how its past continues to shape its present. Any contemporary "reading" of the bicycle in social terms, is made possible by the bicycle's past. In tracing its legacy through an entire historical genealogy, we see the integral role it continues to play within the social dynamics of today.

In subtle, but effective ways, the bicycle continues to shape understandings of "class," "status," and "identity." In order to elucidate these relatively concealed processes, I return to an analysis of my experiences in the repair shop and the many people who came to visit it. In recounting and analyzing these experiences, I seek to explicate the many ways in which the affective social dimensions of the bicycle continue to play a role in contemporary class and identity politics.

chapter three: making "class" legible

In an examination of its historical trajectory, the bicycle has shown that it has played an integral role in shaping the modern societies of today. In addition to exploring the ways in which the bicycle has shown its ability to affect entire nations of people in a variety of different ways, a return to the "reading," as well as the *indexicality* of the bicycle, provide valuable insight into social characteristics on a more local and individual level. Emerging out of my experiences during three months of fieldwork, I have found that the process of "reading" a person through the material qualities of their bicycle is at the heart of any effective interpretive process, and integral to the mechanic's work. Here, an individual is better understood—in social terms—through the proper interpretation of the physical features of their accompanying bicycle. It is a dynamic process, one which has played out innumerable times during my time at the shop, whereby prevailing cultural associations and expectations of class, status, or rank, all come together to render an individual "legible" to the mechanics of the shop.

Following in this pursuit, I borrow from the political scientist James Scott, and his notion of legibility, which describes the way in which the complexities and diversity of "nature" are rendered legible by the state, in efforts to transform them into subjects of domination and control (1999: 3). In the specific context of Scott's narrative—nineteenth century German "scientific forestry"—the diversity and complexity of a given subject (the forest) are simplified through a "synoptic" process, so as to render them comprehensible and manageable in the language of statecraft. In parallel with Scott's broader argument, that analysis is an inherently simplifying act employed in attempts to better comprehend the infinitely complex, I consider the interpretive processes at work vis-à-vis a bicycle "reading" as equally synoptic. In such cases, the social

position of each patron is summarized through an interpretation of their bicycle's physical features, in order to be considered "readable" by the mechanics of the shop. The contextual markers gained through this synopsis are useful for the mechanic, and allow them to better navigate the many social pitfalls that exist in and around the bike shop.

With the right knowledge and linguistic skills, a mechanic is privy to an entire wealth of information—relatively illegible to others—through the proper "reading" of a bicycle. However, in order to for this process to be utilized effectively, the mechanic must continually confront a variety of questions. For one, what physical or social features are most important to the mechanic? Which characteristics provide the most useful information, and how are they mobilized to describe each individual effectively? And to what end? Are these interpretations mere assumptions? Or, does an effective reading of an individual through their bicycle, sourced from reliable information, emerge from a subject position imbued with authority? These questions, and more, are the central issues at stake in any interpretive "reading" of the bicycle. The authority of the mechanic to make such claims, and to properly utilize an interpretation, rests not only on an effective mastery of proprietary linguistic and epistemological systems, but also on their ability to confront questions like these effectively.

Keeping these questions in mind, the concept of class has enormous influence within the bicycle repair world. It is the characteristic most often cited by mechanics regarding the social life of the bicycle. When referencing a bike within the shop, formulating a plan of action concerning repair and maintenance work, or deciding the most appropriate way to converse with patrons—social class is the characteristic most often considered essential. It provides the mechanic with the most pertinent information about how to deal with the situation at hand. Understanding the social characteristics of a person, allow mechanics to make better judgments

about what they say, how they say it, and in the ways they must behave. On a more practical level, it also provides mechanics with clues about who might prove to be a difficult or aggravating customer—extremely important factors to employees in the service industry. The ability to prepare oneself mentally, for the onslaught of an incensed or belligerent customer, is a valuable asset indeed.

redefining a term

Inspired by the work of Paul Fussell (1992), Russell Lynes (1954), and Pierre Bourdieu (1984), and their concepts concerning social hierarchies, by "class" I am referencing a part of the concept that is connected to the many ways in which material objects are cultivated as markers of distinction. In this framework, class has less to do with wealth, education, or occupation per se. Although these are undoubtedly important elements in distinguishing and defining an individual in social terms—and most likely some of the first reference points most people turn to—they do not represent the essential features of "class" in the world of the bicycle. An individual's "taste, values, ideas, style, and behavior" (Fussell 1992: 16) are more appropriate elements to consider in reference to class position. They are external features that reference internalized conceptions of identity and social status, as well as the features that render an individual legible within the shop and their position within a larger social hierarchy more effectively.

In adopting this new understanding of class, I seek an extended vocabulary with which to understand class-based identity politics as they are utilized by mechanics in the daily performance of their labor. Providing the mechanics of the shop with a more effective way to navigate the complex social webs that surround them, this framework also seeks to expand upon on the more mundane conceptions of class concerned solely with wealth, occupation, and education that obscure other, equally important characteristics. Particularly, I am focused here on "taste" and "style" as important terms to consider when conducting a semiotic interpretation of a bicycle. In addition to their status as relatively overlooked terms, these two components of "class" are recurring elements, found within a vast majority of bicycle "readings."

Returning to support this focus on the material object as it relates to taste, style, and their subsequent role in the social status of an individual, is the assertion that objects, like persons, have social characteristics (Appadurai 1986: 3). Following the role of *indexicality* in performing an effective "reading" of the bicycle, I take special interest in the meanings that inhere upon the objects themselves, following the suggestion that "we have to follow the things themselves, for their meanings are inscribed in their forms, their uses, their trajectories" (Appadurai 1986:5). Providing weight towards my argument envisioning the forms of the bicycle as having distinct *index*-like qualities, this insight is particularly compelling. It is in Appadurai's approach that I find a theoretical framework well suited to assist me in my task of outlining a comprehensive image of the social life of the bicycle.

Within this newly seeded fertile ground is where a semiotic "reading" of a bicycle's physical features can work most effectively to outline the socially relevant characteristics of an individual. Adding to the information gained through this interpretive process, the relationship between the bicycle's forms and the person in question are subsequently correlated by someone well versed with the meanings attributed to each specific feature. Though there are always exceptions to this rule, this role is predominantly filled by the bicycle mechanic. Few others have had the opportunity to experience both the bicycle and its owner so intimately.

Mastery over the linguistic conventions, possession of in-depth technical knowledge and skill, provide the mechanic with an unusual sensitivity to the human component of their work. With more and more time spent in the shop, the mechanic becomes attuned to the social characteristics that surround the bicycle. Through such experiences, the mechanic becomes unusually qualified to trace the myriad connections that appear between bike and owner. This is integral to any interpretive work, as it provides practical clues on how a mechanic might best proceed.

Within the context of the shop, the appraisal of a bicycle owner is something that occurs throughout the day and to everyone who comes through our doors. Yet, this interpretive process is not unidirectional. In addition to tracing connections between the physical features of a bike and its owner, the subjects of any "reading" also actively participate in it themselves. Each of my interlocutors comes to define a part of their own "class" position or status through the specific ways in which they relate to their bicycle. They work to construct a sense of their own identity, by tracing tangible and connections to the physical features of their bike. Like many other material possessions, the bicycle is mobilized in various ways to constitute meaning. Much like the clothes one wears, the haircuts they receive, the books they have on their shelf, the type of alcohol they enjoy, the music they listen to, or the sports they play, work to define an individual—so does the bicycle. It is an object among a vast catalog of material possessions, which have been mobilized to define how an individual is positioned within larger hierarchies of "class" (Lynes 1954).

Often invisible to those on which it operates, this process occurs at a subconscious level that most are unaware of. Inherent to any act of identity construction, is a whole array of complex, subconscious processes, working to constitute the very essence of a Self. All but the most self-aware are able to recognize when a thought, memory, event, or object has been mobilized in service towards such a goal. It is therefore my intention in what follows, to make at least one aspect this process tangible through example. To do so, I turn to a particular set of ethnographic encounters with two very different individuals. Through continuous contact (with them and their bikes), and direct conversations (some long, some short), I explore the ways in which an effective "reading" of the bicycle works to contextualize an individual within larger hierarchies and systems of "class." As customers, each of them has come into the shop to have their mechanical needs satisfied. Though ostensibly sharing common ground within the shop on the basis of their status as customers, their position in relation to the larger social structures that surround them could not be more different. They hail from opposite ends of the "class" spectrum—seemingly unaware of just how much they are reflected in and shaped through the physical features of their respective bicycles. Yet to Matt and me, their bikes say more than enough. Like well-placed footnotes, the "reading" process that we constantly perform works to highlight these unconscious markers and compliment the more explicit social interactions that occur within the shop.

the "leisure class"

On this particularly manic day, I was riding an indescribable kind of high. It's the type of feeling I would occasionally get from seeing the adoration and gratitude on the faces of a satisfied customer. Setting a new personal record, I skillfully changed five bicycle tires in the span of a half-hour. My hands were raw and tired, stained with the dirt and grime of the New York City streets that cover the bicycle tires I have been handling. Working casually, this probably would have taken even the most experienced mechanic well over an hour to do, but I was done before I knew it. That day just felt different. Attempting to overcome some personal relationship difficulties at the time, I was propelled by a desire to keep my hands (and mind) busy with the work at hand. Despite my desire to distract myself through focused attention to my

manual labors, I am inevitably pushed out of my trance-like state of euphoria—back to the harsh reality of present circumstance—by a particularly onerous patron.

As I am sitting within earshot of the front desk, I could not help but overhear Matt speaking to a customer. An opulently dressed woman in her late thirties is leaning over the counter, speaking to him in sharp, raised tones. Lucy is her name. She is a white woman, in what seems like her early thirties. Lucy comes from one of the wealthiest neighborhoods in New York City (see Figure 8), something that is entirely evident once she begins to speak. She makes it clear that she wants to be taken care of immediately. Lucy wants her bike repaired now, then strapped to her car in an attempt to beat the weekend traffic out of the city on her way to her Southampton beachfront estate. As we calmly and carefully inform her that we have many other pressing projects to attend to, and that we cannot simply drop everything to attend to this bike immediately, she is visibly livid. Matter-of-factly, Matt and I tell her that this deadline is untenable. Despite her rude protestations, we simply cannot have the bicycle ready for her until tomorrow at the earliest.

Admitting defeat, Lucy therefore decides that now is the most opportune time to present us with a lurid account of her own private life. Resigned to silent agony, Matt and I quietly sit through an in-depth chronicling of unsolicited personal stories. Painfully repetitive, she continually asserts the importance of her "wonderful" experiences abroad in England. Enumerating the highlights of this time in her life, she recounts the many times she spent riding a bicycle along the Thames, dining with the French Ambassador, and becoming engaged to a successful investment banker from the opulent neighborhood of Kensington. It's difficult to pay attention, and I work hard to disguise my utter disinterest in her own personal affairs.

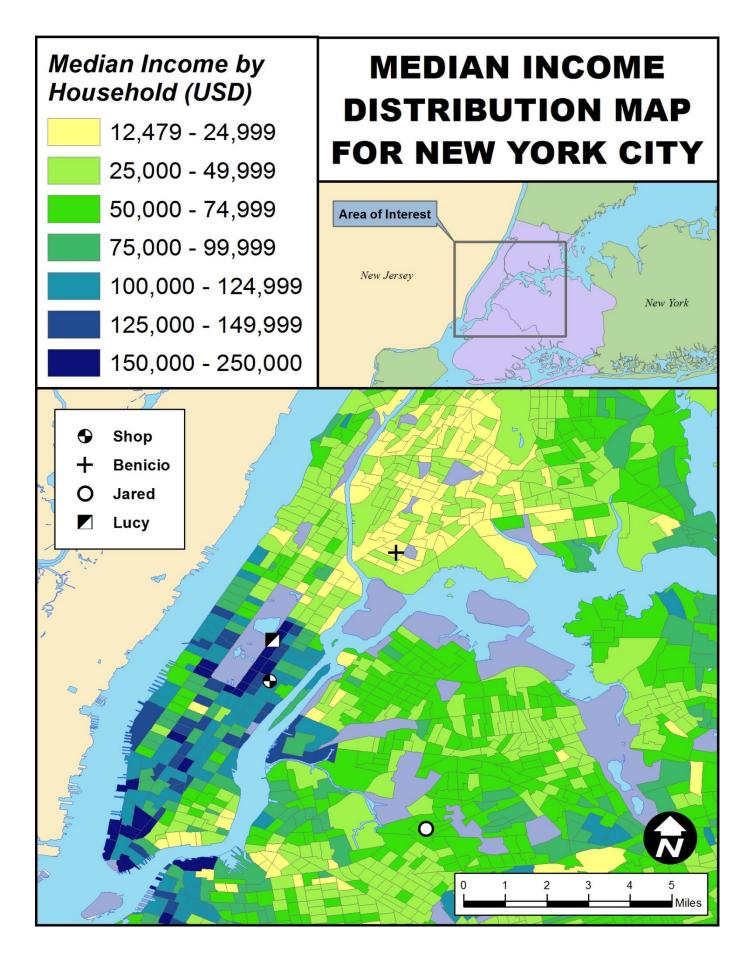


Figure 8. Median Household Income in US Dollars. Map created using 2010 census data, displaying the median household income ranges for individual census tracts within the vicinity of Pedal Pusher bike shop. Location markers correspond to where each of my interlocutors resides within New York City.

Map created using ArcGIS 10.4 and the following data sets:

Decennial Census: 2010 SF1 100% Data (2010) [downloaded file]. U.S. Census Bureau. URL: https://factfinder.census.gov [February, 2017].

American Community Survey 5-Year Estimates: New York State Census Tracts Shapefile (2014) [downloaded file]. U.S. Census Bureau.

URL: https://www.census.gov/geo/maps-data/data/tiger-data.html [February, 2017].

Struggling to relate, the absurdity of the entire situation begins to dawn upon me. We are trapped in this predicament by the promise of being paid for our work; Matt and I cannot simply walk away from a customer in disgust. Defined by our own economic position—as manual laborers making our living in the service industry of a post-Fordist American city—we have little recourse. Reflecting further on my own position within the larger social hierarchies, I am struck with a revelation. It would seem that Matt and I identify with a growing number of tenuously employed workers, so affected by the global dimensions of neoliberal capitalism.⁵ For the mechanics of the shop, our precarious employment status as mechanics is predicated on how well we serve the needs of the shop's clientele, no matter how painful or difficult that may be. If we, as mechanics, refuse to entertain the needs and desires of someone like Lucy, (and word got back to Roger somehow,) we would soon find ourselves looking for another job. The state of prolonged risk and peril that characterizes our position definitely has a cooling effect on how we respond to such stark differences in "class" and general worldview. If Matt or I were ever to meet Lucy in any other circumstances, we would more than likely make a run for it. Yet, in order to maintain our own position within the socio-economic hierarchy of the city, we must cater to the needs and desires of people like her.

Oblivious to our reticence in commiserating over a bourgeois lifestyle of which we know little, our only option is sit patiently and let Lucy finish. Despite our restrained and subtle hints, pointing to fact that we have a long list of pressing tasks we still need to complete, she is tacitly

⁵ In implicating a connection to ethnographic subjects found in the work of anthropologists Kathleen Millar (2014: 34) and Anne Allison (2012: 348-9), I am constituting Matt and I as workers who, despite official employment, are relatively insecure when contrasted against the employment status of many of the customers we serve in the shop. Except for the few deliverymen, messengers, and "working class" commuters who venture into the shop, our clientele is mostly made up of local residents who live near the shop and who are significantly more secure in their finances than a majority of the city's population (see Figure 8).

insistent that we give her our undivided attention. Blinded by anger over the manner of her entrance to the shop, I realize I have not even looked over her bike. With my mind wandering, I begin to survey its physical features for the very first time. It is a two-thousand dollar 3-speed European "cruising" model, emblazoned with a "BRIK" logo (a renowned Dutch bicycle manufacturer)—one she picked up while living in Europe. This bespoke bicycle has all the bells and whistles one might expect. A soft handcrafted seat, plush leather handlebar grips, and a finely milled lightweight aluminum chassis are the most prominent features that catch my eye. It's a luxury bicycle, meant more as a symbol of social or "class" status than a tool of utility. The shiny paint job, pristine tires, and dirt free drivetrain are sure signs that the bike has not really been put to any significant use. Although Lucy has ostensibly come into the shop for repairs, from my cursory visual appraisal it appears as though nothing is wrong with the bicycle.

In my attempts at gauging the characteristics of both bicycle and owner, I casually ask Lucy what kinds of issues she has had with her bike recently. She does not really know for sure, but cites "It doesn't ride like it did in Europe" as a major point of concern. To gauge the extent of the repairs that might be necessary, I ask some technical questions like, "Is it pulling to one side?" "Are the gears not shifting correctly?" Yet, Lucy seems reluctant to engage me in conversation over such topics. From her lack of appropriate or enthusiastic responses, I detect that she is not concerned with her bicycle per se. It is a mere accessory, conferring her with a measure of status and prestige. Without genuine interest in the mechanic well-being of her bicycle, the nature of Lucy's concern must lie with how well she will be perceived within the social world of the Hamptons without the "symbolic capital" of such an expensive and rare possession (Bourdieu 1984: 291). This kind of relationship to a bike is testament to an overwhelming affinity and taste for expensive, handcrafted, and niche commodities—the possession of which ostensibly confer a measure of social status and point towards membership in an upper class (Lynes 1954: 180-6, 310-11; Fussell 1992: 54-6). The bicycle exists within Lucy's life, as an object (like many others) that has been mobilized towards obtaining the bourgeois trappings of status, wealth, and prestige most often associated with a so-called "leisure class."

In conjunction with its potential as outlined in a variety of different historical contexts, the quality of both its materials and construction are major contributors to this particular bicycle's potential as a marker of class distinction. Its cleanliness, bespoke manufacture, and connection to a luxury brand are all features integral to an effective "reading"; they are the legible features of the bicycle—the physical forms that have been mobilized as a way to position Lucy within a wider social context. Yet it is important to consider that the effectiveness of such a "reading" of the bicycle, as it directly relates to Lucy's identity, is aided by the fact that she seemingly is unaware of how much those features define her. Although she has undoubtedly made conscious choices about its purchase and use, the bicycle's effects on her own identity as it is perceived by others, extend beyond the scope of her immediate conception or perception. This phenomenon is not exclusive to Lucy, or her bicycle. It's a dynamic that can be found within any bicycle—rider relationship, regardless of class.

the "working class"

Unable to stomach much more of Lucy, I try my best to get her to leave by politely sneaking off and hiding in the back repair room to work on another project. I am relieved, as other people begin to filter into the shop. These new customers instantly change the atmosphere of the shop, and the once-oblivious Lucy finally takes her cue. As she is turning to leave, a middle-aged, weatherworn man decked out in full fluorescent safety gear walks in, with a decrepit bicycle in tow. His name is Benicio. A recent immigrant from Guatemala, he works as a food deliveryman within the affluent neighborhood in which the shop resides. To save money, he lives in a rough neighborhood in the south Bronx (see Figure 8)—rain, snow, or sweltering heat, he commutes into Manhattan on his bicycle.

Despite Lucy's veiled threats and demands for speed, Matt and I throw her bicycle on the backburner and turn our full attention to our new arrival. To my surprise, the soft grimace of his sweat-drenched face has the unusual effect of calming my recently frayed nerves. His demeanor and general amenability provoke feelings of camaraderie within Matt and me; despite the immediately apparent differences in ethnicity, race, and socio-economic status, as well as our mastery over the English language and the commensurate "symbolic capital" that it confers, we strongly identify with Benicio (Bourdieu 1984: 291). Although many other things in the shop scream for our attention, we instantly spring into action to assist him. At first, our conversation is staggered, and Benicio's broken English strains to communicate the technical specifics of his bicycle issues in full detail. As we try to pull more and more information out of him, my wandering eyes are constantly surveying the extensive disrepair of this bike. Its destruction is almost unbearable. As such, I cannot help but picture a multitude of traumatic scenarios involving this rickety machine and a solid two-ton automobile.

Wallowing in resentment and disgust over its extensive neglect, I contemplate the reasons behind Benicio's continued use of such a dangerous bike. It doesn't really surprise us that this is not even Benicio's bike. This kind of situation is in fact a relatively common practice for immigrant workers in New York City; employers provide delivery personnel with a bicycle so that they are able complete their work without having to invest their own pay into the purchase of a vehicle. In an ideal scenario, responsibility for the maintenance and safety of the bicycles would then fall onto the employer who provided the bike in the first place. Unfortunately for Benicio, the operation of this particular bike has become so hazardous that he has taken it upon himself to seek assistance in its remedy. Matt learns that he has not alerted his boss to the fact that he has consulted our expertise. From his nervous protestations against our desire to call his boss, it becomes clear that he did not want to upset the tenuous relationship he has with his employer by seeking out repairs.

Seeing that no one else seems to care that this bike is mere inches away from falling apart, Matt and I therefore feel it is now our duty to defend Benicio against what we perceive of as abuse. We resolve ourselves to helping him. Reaching for the grimy shop phone, I look up and carefully dial the number to Benicio's place of employment, "Mediterraneo" Restaurant; located a couple of blocks down from our shop, it is just one of many local places where the local bourgeoisie are able to flaunt their extravagance in public. Although my mind is still a bit fogged by my distaste and resentment in response to Benicio's dire predicament, I am extremely direct and personable in my attempts to reach a figure of authority. Transferred around from multiple people in the restaurant, I am finally given the cellphone number of the owner. I immediately hang up and call. Even over the phone, his thick Italian accent can't mask the mix of condescension and confusion I hear in his voice. I begin to explain that Benicio's bicycle fell apart, and that it will not perform its duties again without some serious mechanical intervention. Though I have only presented him with this simple statement, this belligerent man immediately leans into me with accusative questions. "Why is Benicio there?" "What happened to the bike?" "Are you telling me I'm going to have to spend ninety dollars on this?" Through the barrage of accusations and assumptions, he seemingly cannot conceive of spending money on something other than expensive French-made wine, or imported Italian mozzarella cheese.

After a couple of attempts at negotiating both the price and scope of repairs, and unable to get me to compromise my position, the owner finally concedes to my demands. He gruffly tells me to instruct Benicio to return later on with money to pay for the repairs. As Benicio leaves the shop, smiling broadly from the care and concern we have showed him, Matt and I immediately spring into action. Leaving Lucy's bicycle by the wayside, we carefully lead Benicio's wreck into the repair room. Surveying the damage, we precisely divide our duties so as to finish the work as quickly and efficiently as possible. Matt applies himself to the wrecked brakes, pulling out two brand new brake sets from one of the hundreds of drawers in the back of the shop. I, on the other hand, find myself doing one of the most technically demanding things required of a bicycle, "truing" the wheel—making sure that Benicio's wheels carry him exactly where he needs to go. We work in tandem, rarely pausing, other than to help the occasional customer who happens to wander into the shop.

While working, I reflect on the distinctive relationship between Benicio and his bicycle. They are remarkably similar in many ways. Both of their bodies appear bent and broken, seemingly subjugated by the oppressive forces of neoliberal capitalism and a covertly racist society.⁶ Dirt, grime, and oil cover their skin. They seem worn out and tired—neglected and ignored, both Benicio and bike show signs of significant use. Underneath the bright fluorescent safety gear, Benicio's clothes are dirty and tattered. Pedaling through the congested city streets in

⁶ Following Aihwa Ong (2006) and her exploration into exception, Foucauldian governmentality, and citizenship in relation to the concept of Neoliberalism, I interpret Benicio and Lucy within a similar framework. Operating within this paradigm, it becomes clear that Benicio has less value as a member of society because he is perceived to contribute relatively little to the neoliberal economy. Diverging from normative expectations tied to an ideal neoliberal citizen, he consequently has less access to the normative 'rights' and 'freedoms' most often associated with membership to a modern liberal 'democracy' like the United States.

the height of summer, his clothes are severely sweat-stained. His bike is equally roughed up, and there are scratches and dents throughout its frame. The physical appearance of this pairing evokes the gritty and strenuous nature of hard manual labor. Working to constitute a perception of Benicio within the minds of others, these characteristics combine to render him as a member of the poor working-class. Like Lucy, a social understanding of Benicio is directly tied to the physical appearance his bike.

In addition to viewing the extensive disrepair and overall messiness of his bicycle as a marker of social status, Benicio's position within larger class hierarchies is made that much more apparent by what type of bicycle he has. It is a cheap, "department store" bike (how we in the shop, describe the cheaply made, mass produced bicycles most often made in Asia). To Benicio, and others like him within the contemporary globalized world, these bikes are their only option. Cheap but relatively effective, they are entirely utilitarian, providing basic transportation until they inevitably break due to their shoddy construction. Despite their indispensable utility and function, they instantly mark one as a member of a lower social class. Within contemporary bicycle-related culture, the conventions of taste that Lynes (1954: 312) defines as "lowbrow," would be particularly applicable; this refers to a sense of "taste" and "style" that are diametrically opposed to the sensibilities that define membership within an "upper" or "leisure class." Contrasted against the more niche and hand-tailored bicycles purchased by people like Lucy, this bike seems as though it was made for the "working class." Without the economic means or knowledge prevailing conventions of style, the bespoke bicycles of the "leisure class" are far out of reach. Others like Benicio, who ride "department store" bikes, are therefore identified as members of the so-called "working class" due to their association with an object stigmatized by a lack of appropriate "taste" or "style."

Matt and I continue to work, straining heavily against the many rusted, bent, and broken components that litter Benicio's bike. With my hands occupied, I reflect upon the stark differences between these two very impressionable customers. Although hailing from opposite ends of the "class" spectrum, both Lucy and Benicio share something vital. Like the high quality construction of Lucy's bicycle, the cheap, shoddy, and basic appearance of Benicio's bicycle are all integral features of its *indexicality*; they are the legible physical features of the bicycle that have been mobilized as a way to identify Benicio relative to wider social contexts. Benicio, like Lucy, is also seemingly is unaware of how much those features define the kind of person he is. Yet, in his focus on earning a living and providing for his family in a foreign country, Benicio is seemingly unconcerned with his status within the complex social hierarchies of the affluently bourgeois neighborhood that surrounds the shop.

For Lucy and Benicio, the nuances and complexities of their respective social positions are made tangible through an interpretation of their respective bicycles. Their own class subjectivities are made tangible and "readable" by the ways in which both their person and their bike manifest themselves to us—the mechanics—as a distinct, cohesive, and packaged whole. This representation of the individual within the shop constitutes what I will term, a "socially implicated identity"; that is to say, a socially constituted identity, based off of how other people perceive and understand an individual in distinctly social terms. Whether these understandings emerge from conceptions of "class," "style," "taste," or any other "readable" category—this identifiable package is what Matt and I use in our attempts to position Lucy and Benicio within a larger social field.

chapter four: reflexive bicycle identity

In the context of the post-Fordist, neoliberal, commodity driven, capitalist society from which I work as a mechanic, the relative position of the shop's clientele in relation to concepts of social "class" has shown its capacity to be made tangible through an examination of the material qualities of each bicycle. Yet, coterminous with the distinctly "class"-based interpretation as evidenced through Lucy and Benicio, there exists another equally important process: that of the reflexive constituted identity. In contrast to the relatively unconscious qualities of a "socially implicated identity," the bicycle is also a site where distinctly conscious self-conceptions of identity are constructed and re-projected outward as a cohesive, seemingly pre-meditated personality. In this process, the manipulation of the bicycle, both physically and conceptually takes center stage. In this definitive process, a variety of unique and quite individualistic identities takes shape.

Like the legibility garnered through a "reading" with the concept of "class" in mind, this seamless process is similarly constituted through the semiotic interpretation of each bicycle's specific physical form. Yet, unlike those processes attached to notions of "class," this process occurs at a conscious level, in the minds of its subjects. To illustrate this process in action, I turn to the experiences of another one of the shop's most prominent figures, Jared. In what follows, Jared works to redefine himself and his own position within society through the complex ways in which he constitutes and responds to his bike. Fully aware of the ways in which the bicycle's features can be mobilized to define his own identity, and in the ways they affect the perceptions of those around him, Jared works to constitute a particular image of himself within the minds of others.

We must drop everything. Stopped in our tracks, we can't even take a breath, appraise the damage, or begin to plan the intricacies of our next repair project. The dreaded "Bike the Big Apple" bicycle tour leader appears at our doorstep. This local tour company regularly comes by twice a week to outfit their clients with bicycles, helmets, and other accessories for a "half-day" bicycle tour around the city. Catering to mostly affluent Western European tourists, it has been conducting these tours in Manhattan for the better part of twenty years. Contributing to the continued success of the company is a charismatic young cyclist named Jared. Riding in on a bespoke, fifteen-year-old, hand-welded, steel framed Bianchi, Jared looks exactly how you think a bicycle tour guide should look. A refreshing sight to local bourgeois sensibilities, he appears sleek and sophisticated with his racing cap, rolled-up jeans, short sleeve printed shirt, and European-style athletic shoes.

To the casual observer, Jared epitomizes the character of a hardworking young man, (literally) living by the sweat of his brow. Even with an unhealthy penchant for tobacco, he appears to be a strong and athletic cyclist. He ought to be, for he has told me that his job as a tour guide is currently his only means of support. Born to a pair of esteemed university professors on the upper east side of Manhattan, Jared comes from a highly educated, white, upper class, metropolitan background. Spending his childhood in one of the most affluent parts of the world, he also attended some of the most prestigious preparatory and private schools in Manhattan. As a reasonably competent student, he then went on to complete an undergraduate Psychology degree at Wesleyan University when he was twenty-two.

On this particular day, Matt, Jared, and I lounge around in the shade of the tree that sits outside of the shop, waiting for the tour group to arrive. Apparently unfazed by the newest trends or technologies, Jared casually whips out his seven-year-old Nokia flip-phone. "This doesn't even have the internet on here. I don't want to be plugged in all the time" "I don't understand why you need more than this" "Those iPhones scare me." In fact, he is often vocally resistant to expensive purchases, and today he grouchily shuns Matt's recent purchase of an expensive new smartphone. His aversion to new products becomes clear when I ask him why he still uses a heavy fifteen-year-old bicycle to do physically demanding tour-guide work. In a bout of sentimentality, Jared proceeds to share the story of how he got the bike. It was a gift from his late father, given to him when he first left home to go off to college.

object based identity

Back in 2002, Jared's Bianchi "Eros" was a top-of-the-line bicycle (see Figure 9). Like always, his father spared no expense in providing him with all the material luxuries he could provide. The Eros was a very expensive bicycle, and at the time, it was emblematic of the disdain Jared felt for the material objects that his family so casually showered upon him. According to Jared, his eyes were opened in college; living outside of his privileged and relatively cloistered life for the first time, he truly began to understand how relatively little others had in comparison. This attitude followed him into his life post-graduation, were he saw that everyone around him was scrambling to participate in the, "crazy rat race of life, killing yourself to make money to buy the next new thing that comes out [sic]." As a direct consequence of his newfound collegiate perspective, this three-thousand dollar bicycle sat alone in storage for the next four years. Seeing it as a part of his privilege, Jared would not touch it again until after his father's sudden death, a couple of months before graduation. "He died quietly in his sleep...that's how I want to go too," is all Jared ever said about his father's death. Despite its deep material significance to a profoundly life altering event, Jared's "Eros" has come to embody the ethos of a new personality and lifestyle. Due in part to its age and sentimental significance, this prized bicycle has been

meticulously maintained. Almost fanatically, the gears and chain are lubricated daily, tire pressure is kept optimal, and no matter the weather, every surface of this bicycle still appears immaculate. Exuding the allure of a rare 1950s era sports car—to those with a keen and developed eye for quality, Jared's bicycle is the site of substantial adoration and praise. There are very few of these kinds of bicycle left roaming the streets of the world, and far fewer so impeccably maintained.

The high level of devoted care that this particular bicycle receives is not so rare in the modern bicycle world. Many dedicated cyclists tend to their bicycle's needs with ritualistic devotion. What is unusual in this case is that Jared's caretaking does not emanate from a



Figure 9. 2002 Bianchi "Eros."

This stock image of the 2002 Bianchi "Eros," is just as immaculate as Jared's fifteen-year-old bicycle that sees regular use. It is host to an array of high-quality parts and materials—setting it apart from many of the bicycles we encounter at the shop. © 2016 Bicycle Blue Book, LLC.

compulsive desire to maintain the prestige associated with such an expensive piece of hardware. The particular nature of Jared's tenderness towards his bicycle is, like him, unique. It was the last thing his father ever gave him, and as such, it holds a special place in his heart. Out of all the things his parents hoped to provide him with, it is also the only thing he has chosen to keep from his "former life." The reverence he shows for "his Dad's Eros" goes beyond mere sentimentality, it provides him with a material link to a past he seemingly seeks to put distance from. Existing as a material reminder of his own personal history—like Lucy's bicycle, it is by virtue of its physical features, an object of affluence and privilege. Yet, despite its correlation to wealth and power, it has now been repurposed in service to more conventional (and as some would say, altruistic) aims. The symbolic significance of this shift cannot be understated. Once a material object of privilege and wealth, his bicycle has been transformed to align with the character of Jared's current line of work. Though its physical features once signified wealth and privilege, through age the bicycle has taken on new meaning; it is indicative of Jared's humility and dedication to his new lifestyle.

Diverging significantly from traditional caricatures that depict the insensitive extravagance of upper class New Yorkers, Jared comports himself with a unique blend of bravado and earnest humility. His ineffable work ethic is more reminiscent of an aged babyboomer pensioner than that of a thirty-one year-old trust fund brat. Even in the midst of the scorching heat, Jared is seemingly unaffected by the aggravating and insensitive bourgeois attitudes of the clientele. Though I cannot bear to exchange more than a few words with them, Jared gleefully greets each of the tour participants with ease. The energy and enthusiasm he exudes is keenly felt by all those around him. Even Jared's demeanor on this oppressively humid day is characterized by a palpable euphoria regarding the kind of excitement and adventure that he and his tour group might encounter. Despite the oppressively high temperatures, his sharp, jerky hand gestures and body movements are indicative of the excitement and enthusiasm he has for the ride to come.

I, meanwhile, stand sullenly in the corner. I am profusely sweating after lifting more than seven heavy rental bicycles out of the dungeon-like basement. Some of the tourists eye me with what I can only describe as a mixture of suspicion, confusion, and disdain. I want nothing to do with the incessant nit picking of these visitors, who are either unaccustomed or averse to the gritty appearance of someone, like me, who finds themselves members of the "working class." Reflecting on Jared's unbridled congeniality towards these outsiders, I cannot help but admire his performance. Despite my own reservations in regards to serving the needs of obtuse customers like these, Jared seems to take pleasure in the happiness of his clients. The pretension of grandeur that these tourists exude matters little; Jared's focus lies in ensuring the safety and satisfaction of his guests.

The unbridled satisfaction he has for his work feels entirely genuine, and I struggle to understand its source. Is this work a sort of penance for his upbringing in affluence and privilege? Or does he simply enjoy his work so much that he does not consider such behavior a chore? A few hours later, once Jared has seen all of his clients off at the end of a long day, I press him further on the reasoning behind his choice to become a tour guide. Matt smokes a cigarette nearby while talking on the phone to his new Turkish girlfriend. "I just felt called to do it. For one, we don't have enough people showing off the beauty of our city to people who have never experienced it. But, I also could never get a 'nine to five'…its soul crushing." Gulping down an ice-cold lemonade, I gently remind him that Matt and I work most days from nine to five. "Oh no! Not to trash you guys, 'cause you two work really hard…I mean like an office job. That's just not for me. My parents wanted me to go to law school or med school, or do something like that, but I wasn't having any of it. My path was all laid out for me, but I was just sick of everyone telling me what I *should* do...ya know?" He goes on to tell me that he did not want his life to end up looking like everyone else's—he wanted something different. So he made a conscious choice not to take advantage of the opportunities that most people in his life expected him to.

Right after graduating, Jared took a job as a bike mechanic in a bike shop so that he could continue to live near his girlfriend in Middletown, Connecticut. There he learned the technical intricacies associated with bicycle repair and maintenance. It was also here that he got his first taste of bike touring. The shop he worked in offered several different group ride sessions every week, with varying speeds and distances to suit the skill levels of different riders. He told me how good it felt to be riding around with people. Looking back, Jared says that "this job really helped me forget about all the bad things that had been happening in my life. My father's death hit me pretty hard, and I wasn't really speaking to my mom at the time. The only thing I had going for me was the shop and the rides. But it was great!" He decided from then on, that he was not going to pursue things like building a career, making money, buying a car or house. Jared focused his energy on achieving "happiness and fulfillment in what I do every day." To him, that meant working as a bike mechanic.

Moving to back to New York to be closer to his mother, he refused her offer to buy him an apartment in Manhattan. Instead, he lives in Ridgewood, Queens, and commutes to our shop and a handful of other shops around the city on his bike (see Figure 8). In his intentional choice to live apart from the wealth and privilege of his upbringing, Jared works to redefine himself in social terms. Seemingly flaunting more mainstream expectations and aspirations – and without apparent concern for wealth, power, or social status – he chooses to adopt this one particular bicycle as his sole means of transportation and financial support. His father's old "Eros" has become an integral component of, not only of Jared's work, but his entire identity. In this case, it is only through proximity to this specific bicycle and its physical features that Jared can reflexively constitute a particular identity. Aided through proficiency with the linguistic and epistemological conventions of the mechanic's world, Jared is adept in his ability to mobilize the bicycle towards the formation of an identity characterized by uniqueness and individuality. In his striving to construct himself as a certain kind of person, Jared mobilizes the indexical features of this bicycle. With the training and knowledge necessary, Jared is able to perform a "reading" of his bicycle, in service towards his own ends.

"I bike, therefore I am"

In seeking to solidify the connection between the bicycle and its implications in the formation of particular kinds of identity, I now turn to the experiences of people who, like Jared, have incorporated the bicycle into the very fabric of their lives. Paralleling my experiences in the shop, many other anthropologists have produced work demonstrating the ways in which individuals reflexively construct an identity in direct relation to the bicycle. In these groups, membership is granted on the basis of ridership; cycling, no matter its use, is seen here as a prerequisite for belonging. Yet, to those in such cultures, cycling is envisioned by those who participate it in a myriad of ways. One can portray themselves as a healthy, athletically minded, self-caring person, environmentally cognizant "low-carbon subject," as an obedient, non-deviant citizen working to uphold law and order, or as a way to display a locally rooted personal character, concerned with the local community (Aldred 2010: 35).

In addition to these broad categories, many social groups take form beyond the margins of these more mainstream definitions of identity in relation to the bicycle. Urban messengers, riders of 'fixie' style bicycles, and so-called 'DIY-ers,' are all examples of such groups, which work to define their identities and ideologies through the bicycle in ways that subvert normative expectations and conceptions of what a so-called "bike culture" should look like. As an outsider to these "alternative" groups, I therefore work to decipher the ways in which the members of such organizations construct and interpret their own social worlds.

Through an in-depth sociological study of "bike couriers," Fincham (2007) clarifies the particular ways in which a distinct identity is formed through the adoption of the bicycle as a sole means of employment. In the minds of the daring men and women who work as couriers (also known as "messengers"), their work is more than just an occupation. The direct and embodied participation they experience with their bicycles come to constitute an integral part of their own identity. It is, in their own words, "much more than earning a living – it's a way of life, an attitude" (Fincham 2007: 193). In addition to identifying with the bicycle, these bike couriers also consistently identify their social position as existing within a "sub-" or "counter-culture." Putting his research into dialogue with studies of subculture that have traditionally concentrated on themes of alienation and resistance, Fincham (2007) notes that participation in bicycleoriented cultures is often much more complex. Overwhelmingly, his interlocutors assert that their participation has less to do with a desire for belonging in an "alternative" or "counter-cultural" group and more to do with the idea that it is an enjoyable and relatively fulfilling way of life (Fincham 2007: 200). Central to the joy and satisfaction that these hardworking couriers receive is an intimate relationship to their bicycle. There is substantial ethnographic value with regards to the complexities of identity formation in focusing on the relation of these "occupational

communities" to the concept of a "sub-culture" more broadly. The identity, community, and culture of these groups are maintained by their shared experiences around a shared object (Fincham 2007: 201).

The notion of a communal identity, centered on a shared material object is also present in other bicycle-oriented communities. In what Zach Furness describes as "DIY [Do It Yourself] bike culture," its constituents "are formulating new cultural practices around bicycle transportation and incorporating the bicycle into a variety of art forms and grassroots alternative media" (Furness 2010: 141). Because of its status as a broad cultural category, DIY has as its constituents "a variegated network of bike enthusiasts who are actively hacking, reworking, and modifying the meaning and function of the bicycle" (Furness 2010: 141). By no means is this a homogenous field; those individuals and groups who make up DIY culture more broadly, each have their own beliefs, values, and aesthetics. Yet, the values all of these constituent groups share have their origins in a form of technological individualism and entrepreneurship that emerged simultaneously with the inception of the bicycle in the late nineteenth century. It was a time when bicycle owners, and bicycle mechanics were one in the same; this particular moment preceded the mass-production of bicycles, and subsequent standardization, that led to the professionalization of bicycle mechanic as a discrete role.

The logic underpinning conceptions of DIY have thus emerged out of a historical lineage that has always prized the ability to manipulate the technology of one's own bicycle. Fast-forward to the present moment, the dual meaning of the DIY ethos has evolved little, and has come to be conceived of "as both a process of fixing/building/altering bicycles and an expression of self-reliance" (Furness 2010: 142). Like Fincham's bicycle couriers, everyone who lives within DIY culture—no matter their divergent characteristics—all envision the bicycle as an

integral part of their identity. Whether producing music that glorifies the status of the bicycle or printing and distributing "zines" that exalt bikes while denigrating the role of the automobile, each creative expression has at its heart, the bicycle. Such modes of expression also extend into cultural spaces whose participants question the very form of the bicycle. In response to the relative standardization and homogenization of bicycle designs, many "mutant bike welders" have come to promote "more convivial, hackable bicycle designs as well as the use of recycled and found parts" (Furness 2010: 154). These physical manifestations of an individualistic resistance are representative of an identity that prides itself on its ability to subvert normative expectations and conceptions of what "bicycle culture" should, or could, look like.

This subversion also emerges within a multi-sited ethnography of bicycle couriers in America's major cities presented by Jeffrey L. Kidder (2011). His work focuses on the ways in which these couriers manufacture a particular lifestyle in relation to the alienation many people feel in relation to employment opportunities within the "neoliberal machine." Through direct participant observation as a courier himself, Kidder presents a variety of social phenomena exclusive to these highly mobile urban couriers. Urban "lifestyle" bike messengers find meaning in their work as an outlet for arriving at more authentic selves in environments free from the clock-watching alienation that characterizes other contemporary forms of labor, particularly those considered to be "low-end service jobs" (Kidder 2011: 75). Echoing Jared's aversion from a "soul crushing nine-to-five," these messengers also construct their own identities in opposition to the hegemonic or oppressive aspects of the neoliberal job market.

By highlighting the startling disconnect between work and conceptions of self-identity in the modern world, Kidder distinguishes the unique role of the contemporary bicycle courier. The unusually deep connection between identity (both socially and reflexively constituted) and object is a theme that is found within the lives of Lucy, Benicio, and Jared respectively. It is a dynamic process, whereby identity and purpose are envisioned and then created in opposition to larger hegemonic social forces. One particularly relevant social event referenced by Kidder are the impromptu races and cultural gatherings known colloquially as "alleycats." Borrowing from Durkheim, Kidder frames "alleycats" (organized non-occupational bicycle races) as the collective performance of a rite that works to transform individual messengers' symbols and emotions into a collective sacred reality that binds the group together. Much like the "deep play" of the Geertz's Balinese cockfight, these events are sites where an effective "reading" of cultural practices as text can take place. These performative venues offer both participants and onlookers the chance to encounter the true meanings behind a range of cultural practices that occur with reference to the bicycle.

identity as resistance

Working within larger power structures, these so-called "alternative" bicycle cultures also appropriate the indexical power of the bicycle, along with creative forms or resistance, to ensure the continued survival of their communities.⁷ In the case of the bicycle-oriented cultures just presented, a particular resistance practice is mobilized. Mirroring the qualities of a *tactic* as conceived by Michel de Certeau (1984), these social groups work to constitutes proprietary spaces outside of the domain of the status-quo. It is a concept directly opposed to the notion of a

⁷ In addition to its role within such "alternative" cultures, the bicycle is also implicated within more mainstream social contexts. I take the cycling practices of bicycle users in Copehagen, Denmark, as explored by Malene Freudendal-Pedersen (2015), as a particularly powerful example of performative practices that mirror some of the more "alternative" bicycle cultures previously explored. Here the praxis of cycling in relation to automobiles is shown to have social and political implications beyond a local bicycle-oriented "counter" culture. It is where, instead of enacting explicit resistance to normative cultural perspectives that prize the automobile, Copenhagen's cyclists frame their use of the bicycle as contributing to a vision of the city where "trees grow and there is green grass, and here there are no roads, but of course, bike trails" (Freundendal-Pedersen 2015: 37, 46).

strategy, defined by the creation of "a *place* that can be delimited as its *own* and serve as the base from which relations with an *exteriority* composed of targets or threats...can be managed" (de Certeau 1984: 36). Instead, a *tactic* is a mode of practice, which works to manipulate, divert, or appropriate spaces regulated by dominant forces. A tactic thrives as its lives and operates within the oppressive hegemony of a strategy.

In the case of the bicycle couriers noted by Fincham (2006, 2007) and Kidder (2011), the desire for belonging within a distinctly "counter-cultural" social group, necessitates the use of tactics. Outside of more mainstream expectations of employment and lifestyle, the members of these communities work to construct their own identities as an opposition to the ubiquitous normative social guidelines that circulate around them. Finding meaning in their work, and constructing authentic "selves" that resist the features of a contemporary "neoliberal machine," is emblematic of a tactic. As evidenced by bicycle-oriented communities like these, such practices take playful and creative forms, in the sense that they work to undermine or overthrow strategy while at the same time working within its boundaries. With witty defiance, these communities mobilize tactic to ensure the continued survival of their communities in the face of larger social forces that they envision as hegemonic.

An understanding of how resistance plays out in these communities, leads me towards defining the features of a hegemonic neoliberalism, and outlining its effects within bicycleoriented cultures. Furness (2010), Kidder (2011), and Fincham (2006, 2007) note that their interlocutors often see themselves as embodying a lifestyle which resists the dominant and homogenizing norms of a so-called "mainstream." In order to understand the logic behind such claims, I turn to the definitions of hegemony presented by Raymond Williams (1977). It is important to begin with the premise that hegemony differs from ideology; it grows in the minds of its subjects, and becomes more than "the conscious system of ideas and beliefs, but the whole lived social process as practically organized by specific and dominant meanings and values" (Williams 1977: 109). Hegemony is thus a set of forces that cannot be clearly defined by those under its sway. Here, the preexisting ideologies that bound a social world cease to exist as a conscious set of social rules. Becoming fully integrated into the fabric of everyday reality, they disappear from view. The hegemonic is also perceived by those under its sway as "a lived system of meanings and values—constitutive and constituting—which are experienced as practices appear as reciprocally confirming" (Williams 1977: 110). The hegemonic is therefore an invisible force within the daily lives of its subjects; even when its presence is explicitly known to exist in a wider sense, within the life of the individual, hegemony comes to disguises itself as the conventional or the mundane.

Those living within one of the many bicycle-oriented cultures named above are no exception. Their very lifestyle and occupation is envisioned as a protest against the oppressive nature of neoliberal capitalism. Yet, despite framing their deep connection with the bicycle as a form of power, these groups are perhaps unaware that the forces of hegemony still have a major influence on their lives. In the case of the bicycle couriers presented by Furness (2010), Kidder (2011), and Fincham (2006, 2007), their livelihood is only possible because of the existence of large corporations and capitalist businesses. Despite this fact, many messengers envision their occupation as somehow counter-hegemonic; though subsisting on the periphery of modern capitalist society by avoiding direct participation in the "mainstream," they nevertheless are a part of it. These couriers preceive their occupation and lifestyle as working towards an overthrow of the oppressive, but appear to lack a requisite understanding of the hegemonic social forces that

really direct their lives. Without sufficient effort to make visible the invisible forces shaping their lives, the individuals of these groups will continue to live under the yoke of hegemony.

Closely related to both the deployment of tactics as conceived by de Certeau (1984), and an effective resistance to hegemony as conceived by Williams (1977), the dynamics that characterize bicycle-oriented cultures should also be explained through an analysis of the ways in which the concept of a "public" is understood. Using the work of Michael Warner (2002), I position bicycle-oriented cultures as a form of "counterpublic" within a more expansive public sphere dominated by a normative hegemony. I begin with Warner's assertion that counterpublics are publics too; they are "publics" in the sense that they are organized by discourse itself, constituted through the attention of their subjects, and enable the formation of a relation between strangers (Warner 2002: 50-64). Here, the nature of public speech is also defined as being both impersonal and personal, addressing an indefinite audience. This is key to the power of a public, capturing the attention of a diverse group who would otherwise share little in common. Yet, these features are not exclusive to the "public"—they are also found within the counterpublic. Similarly to that of the public reflexively conceived through discourse, a counterpublic is defined by its subordinate and oppositional relationship to a dominant cultural form.

In the case of the many bicycle-oriented cultures we have explored here, I consider these social manifestations distinctly as counterpublics. Unlike Warner's so-called "subpublics," that do not "require its participants to cease for a moment to think of themselves as members of the general public as well," they are instead "constituted through a conflictual relation to the dominant public" (Warner 2002: 84-5). These cultural formations exist outside of what can be conceived as public discourse. Through a variety of methods, those within bicycle-oriented cultures "mark themselves off unmistakably from any general or dominant public" through their

close identification with the bicycle (Warner 2002: 84). Although such a claim does not consider the fact that just about anyone can utilize a bicycle, it posits that only certain people can reflexively constitute their own identities *through* the bicycle. The lived social world of those who seek to construct themselves in such a way is only possible through their opposition to the oppressive social structures of contemporary neoliberal capitalism.

conclusion

The impetus behind this thesis has emerged from the formative educational experiences I have had the privilege to encounter as a bicycle mechanic. Working with bikes has been one of the most influential experiences of my life, teaching me valuable skills, allowing me to meet some amazing people, all while pushing me into previously uncharted modes of knowing, thinking, and doing. This project is the end-result of my desire to share the knowledge and insights I have gained during my time as a working mechanic. I feel that the social dynamics that permeate the social worlds of the bicycle are important beyond their immediate expression in and around the bicycle shop—they shed light on how objects play a central role in life more generally.

In undertaking this anthropological analysis of the bicycle, one of my most important goals has been to highlight the various ways in which its life as a material object inhabits a diverse array of social milieu. Confronted by the bicycle and its role in societies throughout a range of historical and geographic contexts, I have sought to answer questions such as these: Why the bicycle? What is so special about it? Can it provide any useful or meaningful information? What does the bicycle offer to Anthropological inquiry, that any other socially implicated object cannot? Though the answers to such questions may be elusive and obscure, the insights I provide throughout this project outline an effective way to answer them.

Inspired by the premise that all objects have implications in the social lives of human beings, I have sought to explore the bicycle in similar terms. Beginning with an examination of the deep embodied connection inherent to its physical design, the bicycle proves itself as an object of special importance, able to deliver uncommon insight into the lives of the people that surround its use. This assertion emerges out of my acquisition and mastery of a specific set of technical skills and knowledge that go along with membership to an exclusive, global bike mechanic community. To make the connections I trace between the bicycle and the social worlds that surround it clear to those unfamiliar with them, I have therefore sought to explicate a small portion of the proprietary linguistic and epistemological conventions that lie at the heart of any semiotic analysis of the bicycle. In exposing the inner workings of these diverse perspectives, one process is of particular relevance: the interpretive "reading" performed by specially trained and educated bicycle mechanics, like me. This practice is integral to any effective use of the bicycle in semiotic terms. To "read" the signs of the bicycle, is to make legible the often invisible, unconscious, or unspoken motivations and meanings behind a wide range of cultural practices.

In addition to its ability to be read as a social "text"—providing information about the social life of its users—the bicycle is a social actor in its own right. It is an object that both influences, and is influenced by the specific social contexts in which it is positioned. These contemporary social forms are rooted in a long history, one in which the bicycle has been mobilized as a marker of distinction in a variety of contexts that work to uncover, construct, and interpret conceptions of social "status" or "class." Beyond this, it has also been implicated in the formation of distinct communities. Found in the modern bike courier or DIY-freak, to the militaristic nature of nineteenth century "highwheel" bicycle clubs, the bicycle has played a role in shaping the social life of people since its very inception. Many of those belonging to the bicycle-oriented communities of today also work to construct a distinct identity characterized by a resistance to the hegemony of more normative "mainstream" cultural formations.

All of these features have combined, to render the bicycle as an object of special importance in the lives of people throughout the world. In the coming decades, with climate change and the destabilizing social and cultural upheavals that may follow, the bicycle will continue to play an integral role in the lives of people throughout the world. Yet, the bicycle is an important social object, not only for what it can provide people on a mechanical level (transportation, mobility, freedom, prosperity, health), but what it offers us on an existential and emotional level. The ability to construct an identity, a Self, through the bicycle is one of its most defining characteristics. Building communities and strong social relationships, in an increasingly diverse and global world—one marred by war, inequality, disease, and poverty—is more important than ever. Through its unique power as an embodied social object, the bicycle is preeminently positioned for this task.

Though we often aren't aware of the integral and dynamic role that objects play within our lives, it is my hope that this project inspires others to examine the unexamined, and look closely to the meanings and signs that inhere within even the most mundane of objects. As evidenced by my many interlocutors, though the processes that enable objects to hold such sway is relatively obscure to those aren't aware of it, its power within the social lives of people remains strong nonetheless.

To think about the bicycle, means to think about the innumerable social worlds in which it inhabits. Though it might not seem so at first, the bicycle is more than just an object. It is an object imbued with humanity.

bibliography

- Aldred, Rachel. "'On the Outside': Constructing Cycling Citizenship." *Social & Cultural Geography* 11, no 1 (2010): 35-52.
- Allison, Anne. 2012. "Ordinary Refugees: Social Precarity and Soul in 21st Century Japan." Anthropological Quarterly 85, no. 2 (2012): 345-370.
- Appadurai, Arjun. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge Studies in Social and Cultural Anthropology. Cambridge, UK: Cambridge University Press, 1988.
- Arnold, Lynnette. "Reproducing Actions, Reproducing Power: Local Ideologies and Everyday Practices of Participation at a California Community Bike Shop." *Journal of Linguistic Anthropology* 22, no. 3 (2013): 137-58.
- Bar-Hillel, Yehoshua. "Indexical Expressions." Mind 63, no. 251 (1954): 359-379.
- Bourdieu, Pierre. "The Sense of Distinction." In *Distinction: A Social Critique of the Judgement of Taste.* Translated by Richard Nice. Harvard University Press, 1984. 260-317.
- ---. "The Production and Reproduction of Legitimate Language." In *Language and Symbolic Power*, Edited by John B. Thompson. Harvard University Press, 1991. 43-65.
- Brown, Sheldon. *Sheldon Brown's Bicycle Technical Information*. 2017. http://www.sheldonbrown.com/.
- Crossland, Zoe. "Of Clues and Signs: The Dead Body and its Evidential Traces." *American Anthropologist* 111, no. 1 (2009): 69-80.
- de Certeau, Michel. "'Making Do': Uses and Tactics." In *The Practice of Everyday Life*. Translated by Steven Rendall. Berkeley, CA: University of California Press, 1984. 29-42.
- Emanuel, Martin. "Constructing the Cyclist: Ideology and Representations in Urban Traffic Planning in Stockholm, 1930-70." *Journal Of Transport History* 33, no. 1 (2012): 67-91.
- Fincham, Benjamin. "Generally Speaking People are in it for the Cycling and the Beer': Bicycle Couriers, Subculture And Enjoyment" *Sociological Review* 55, no. 2 (2007): 189-202.
- ---. "Back to the 'Old School': Bicycle Messengers, Employment and Ethnography." *Qualitative Research* 6, no. 2 (2006): 187-205.
- Fiske, John. "Communication, Meaning, and Signs" and "Signification." In *Introduction to Communication Studies*. New York and London: Routledge, 1990. 39-63, 85-100.

- Freudendal-Pedersen, Malene. "Cyclists as Part of the City's Organism: Structural Stories on Cycling in Copenhagen." *City & Society* 27, no. 1 (2015): 30-50.
- Furness, Zack. "DIY Bike Culture." In *One Less Car: Bicycling and the Politics of Automobility*. Philadelphia: Temple University Press, 2010. 140-69.
- Fussell, Paul. "A Touchy Subject" "An Anatomy of the Classes" and "Appearance Counts." In Class: A Guide through the American Class System. New York: Simon & Schuster, 1992. 15-75.
- Geertz, Clifford. "Thick Description: Toward an Interpretive Theory of Culture" and "Deep Play: Notes on the Balinese Cockfight." In *The Interpretation of Cultures*. Basic Books, Inc, 1973. 3-32, 412-53.
- Guroff, Margaret. "How We Rolled." Raritan 35, no. 3 (2016): 93-115.
- Ingram, Darcy. "We Are No Longer Freaks': The Cyclists' Rights Movement in Montreal." Sport History Review 46, no. 1 (2015): 126-50.
- Kidder, Jeffrey L. Urban Flow: Bike Messengers and the City. Ithaca, NY: ILR Press, 2011.
- Kipnis, Andrew. 2007. "Neoliberalism Reified: suzhi Discourse and Tropes of Neoliberalism in the People's Republic of China." Journal of the Royal Anthropological Institute 13. 383-400. Web.
- Kohn, Eduardo. *How Forests Think: Toward an Anthropology beyond the Human*. Berkeley, CA: University of California Press, 2013.
- Lévi-Strauss, Claude. *The Savage Mind*. Translated by Edmund Leach. University of Chicago Press, 1966.
- ---. "The Effectiveness of Symbols." Structural Anthropology. Basic Books, Inc., 1963. 186-205.
- Lynes, Russell. The Tastemakers. New York: Grosset & Dunlap, 1954.
- McCullough, Robert L. "Wheels of Fortune: The Bicycle Boom, Trinity Cycle, and Its Keene Factory." *Historical New Hampshire* 67, no. 1-2 (2013): 52-81.
- Millar, Kathleen M. "The Precarious Present: Wageless Labor and Disrupted Life in Rio de Janeiro, Brazil." *Cultural Anthropology* 29, no. 1 (2014): 32-53.
- Montague, Richard. "Pragmatics." Ed. Raymond Klibansky. *Contemporary Philosophy: A Survey, Vol.1.* Florence: La Nuova Italia, 1968. 102-22.
- Moore, Ted. "Fast Revolutions: Bicycles, Paved Paths, and the Creation of a Middle-Class Salt Lake City 1890-1903." *Utah Historical Quarterly* 79, no. 3 (2011): 264-282.

- Ong, Aihwa. "Introduction: Neoliberalism as Exception, Exception to Neoliberalism." In *Neoliberalism as Exception.* Durham and London: Duke University Press, 2006. 1-27.
- Peirce, Charles S. "The Categories and the Study of Signs." In *Pragmatism and Classical American Philosophy: Essential Readings and Interpretive Essays*, Edited by John J. Stuhr. 2nd Edition. New York: Oxford University Press, 2000. 97-105.
- Pollock, Naomi. "Bike Parking." Sweat the Small Stuff. 2013. https://naomipollock.wordpress.com/2013/05/15/bike-parking/.
- Ryle, Gilbert. The Concept of Mind. London: Hutchinson, 1949.
- de Saussure, Ferdinand. "The Nature of the Linguistic Sign" and "Linguistic Value." In *Course in General Linguistics*, Edited by Charles Bally and Albert Sechehaye. McGraw Hill Book Co., 1966. 65-78, 111-122.
- Scott, James C. "Introduction" and "Nature and Space." In Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven, CT: Yale University Press, 1999. 1-52.
- Steele, M. William. "The Speedy Feet of The Nation: Bicycles and Everyday Mobility in Modern Japan." *Journal Of Transport History* 31, no. 2 (2010): 182-209.
- Stoffers, Manuel. "Cycling as Heritage: Representing the History of Cycling in the Netherlands." *Journal Of Transport History* 33, no. 1 (2012): 92-114.
- Toohey, Michael, Bob Gidlow, and Grant Cushman. "'One Who Does Not Make His Living': Social Class and Cash Amateur Bicycle Racing in Nineteenth Century New Zealand." *International Journal Of The History Of Sport* 29, no. 3 (2012): 429-443.
- Warner, Michael. "Publics and Counterpublics." Public Culture 14, no. 1 (2002): 49-90.
- Williams, Raymond. "Hegemony." In *Marxism and Literature*. Oxford University Press, 1977. 108-114.
- Wilson, David Gordon, Jim Papadopoulos, and Frank Rowland Whitt. "A Short History of Bicycling." In *Bicycling Science*. Cambridge, MA: MIT Press, 2004. 3-35.
- Zinn, Lennard. Zinn & the Art of Road Bike Maintenance: The World's Best-Selling Bicycle Repair and Maintenance Guide. Fourth Edition. Boulder, CO: VeloPress, 2013.