

SAFER 4 CYCLISTS

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Chapter 1

This thesis work establishes *Safer 4 Cyclists*, a safety initiative consisting of a body of work of visual solutions and accompanying research that is not only beneficial to me personally, but to all cyclists, regardless of age, skill level, or reason for riding, be it recreational or for transportation. It is my intent to show that: there exists a hostile and dangerous environment for cyclists riding on the road; and to reveal through a thorough exploration of the underlying conditions, perceptions and human psychology of both cyclists and motorists simple steps that can be taken on behalf of a cyclist to facilitate a safer environment in which to ride. Identification and education of these measures allows cyclists to become active participants and facilitators for both personal safety and the improving of the hostile environment when sharing the road with motorists. Through a visual body of work, corresponding web presence, and collection of data, this initiative seeks to make the cycling environment safer for everyone. *Safer 4 Cyclists* is centered around the safety and conditions that exist for cyclists in the state of Alabama, and my subsequent contributions to the community around the city of Anniston, as it strives to become “Bike City, USA.”

Chapter 2

In order to address the issue of the hostility faced by cyclists on the road, one must first understand why this negative environment exists in the first place. My research led to the discovery of a number of psychological principles regarding human nature that helps to explain this phenomenon. The first idea is the notion of *negativity bias*. This point is documented through scientific study of both animals and humans and states that an individual will give a greater weight or importance to negative entities (e.g., objects, events, personal characteristics). This means that negative entities, or events, are stronger than their equivalent positive counterpart and exemplifies that the good does not outweigh the bad.¹ This *negativity bias* also means that we not only process negative information faster and more thoroughly than positive, we remember it more vividly, and that it has a longer lasting effect on us.²

Accompanying the principle of *negativity bias*, is the principle of what is termed *negativity dominance*. If both positive events and negative events are combined, even if there are an overwhelming number of positive events, the outcome will be negative. This may seem contradictory to logic, but due to the heavily-weighted *negativity bias*, the outcome of both positive and negative occurrences, no matter how large the difference in frequency, will always result in a negative outcome.³ This is exemplified in an age-old Russian adage "A spoonful of tar can spoil a barrel of honey, but a spoonful of honey does nothing for a barrel of tar." It is far easier to pollute than it is to purify. Imagine seeing a group of cyclists riding, with each one stopping at an intersection and waiting for the traffic light to turn to green before proceeding. Now imagine the same intersection, and witnessing a cyclist running the red light. No matter if 50 cyclists were seen obeying the law, *negativity bias* and *negativity dominance* show that there is a definite trend for a viewer of that scenario to only remember the single negative occurrence, in this case, the law-breaking cyclist who ran the red traffic light.

The third psychological concept one must understand is that of the *free rider*. More specifically, the *problem* of the *free rider*. Specifically, a *free rider* is an individual member of a group that receives the same benefit as others, with little or no investment, relative to others receiving the same benefit. In most cases, there is the consumption of a public good that is relatively available to all, such as clean air, national security, or as it relates to this investigation, the use of public roads. The key to defining both rightful users and *free riders* lies in the fact that the object being

1. I Rozin, Paul, and Edward B. Royzman. "Negativity Bias, Negativity Dominance, and Contagion." *Personality and Social Psychology Review* 5, no. 4 (2001): 296.
2. Burak, Jacob. "Praise Feels Good, but Negativity Is Stronger – Jacob Burak – Aeon." *Aeon Magazine*. Accessed March 4, 2015.
3. Ibid
4. Raihani, Nichola J. "Free-riders Promote Free-riding in a Real-world Setting." *Oikos* 119, no. 9 (September 01, 2010): 1391.

utilized is a public good, which provides collective benefits. These collective benefits are often difficult to sustain, as any investment made by a user is shared by all users of that resource, regardless of the level of contribution.⁴

This is easily seen through an examination of roads and highways and the differing perception of automobiles and bicycles. Roads are public resources, created by municipalities funded at least in part by taxes, licensing and vehicle registration fees, tolls, development fees, and property tax general funds. Riding a bicycle on the road requires at the bare minimum, a bicycle (and ideally a helmet). There are generally no direct fees such as taxes involved in riding a bicycle on any public roadway. That is not to say that many cyclists are also licensed motorists, who own automobiles, pay property tax, and purchase fuel with which to drive on the same public roadways.⁵

Many empirical studies have been conducted in order to determine the level of cooperation or coordination among *free riders*. Nichola J. Raihani and Tom Hart with the Zoological Society of London conducted a study to investigate the idea of the *free rider* in a real world setting. They discovered that there is a direct link between the *free riders* and the promotion of free-riding. It was found that participants were less likely to contribute to a public good if they perceived that others were free riding as well. Also, by increasing the number of *perceived* free riders, there was found to be a linear increase in the *actual* number of free riders.⁶ If a person *thinks* that others are not making a contribution and still using the community resource, there is a tendency for them to do the same.

This directly impacts cycling on the road in a number of ways. First, if a cyclist is witnessed by other cyclists running a stop sign, then those cyclists would then have the perception that others are running stop signs with no ill effect, and therefore could have a tendency to run stop signs themselves. However, on the other hand, if those same cyclists were observed stopping at stop signs, this would lessen the tendency for others run the stop signs, as there would be the perception that there are fewer other cyclists who are breaking the law by not stopping at stop signs. Secondly, and more important to the social bias against cyclists on the road, is the fact that cyclists are viewed by motorists as free riders by simply riding a bicycle on the on the road, or as many motorists view, *their* road. To many motorists, cyclists affect the moral order of the road. For law-abiding motorists who pay taxes on licenses, vehicle registration, fuel and property taxes if they are landowners, those funds go toward building and maintaining roadways. Many motorists do not see beyond the fact that a cyclist, like themselves, is most often is *also* a taxpayer. Those motorists see a bicycle, for which no license or registration and subsequent taxes are required, and for which ultimately, the cyclist paid no fuel tax to propel the bike down the road. To many of these motorists, a cyclist is

5. Mionske, Bob. *Bicycling & The Law*. Boulder: VeloPress, 2007, 197.

6. Raihani, Nichola J. "Free-riders Promote Free-riding in a Real-world Setting." *Oikos* 119, no. 9 (September 01, 2010): 1393.

someone reaping the benefits (riding on the public roadway) that the motorist paid for (through those taxes) without paying the same taxes themselves, thus literally becoming a “free rider.”

There also exists a set of rules of the road, both legal and informal that drivers of motor vehicles must follow. Stopping at red lights and stop signs, speed limits, driving within the correct lane, signaling turns and driving predictably, all in large part to allow traffic to flow predictably and consistently. All users are assumed by motorists to have a relatively equal level of contribution (i.e. properly paid taxes) for their rightful and equal use of the public roadway.⁷ This the same level of contribution, and adherence to the rules of the road contribute to the overall sense of community among motorists.

Herein lies a major problem with cycling on the roadways. As bicycles are not automobiles, cyclists are instantly at a disadvantage in their rightful use of the roadway, as they are perceived as being not being part of the normal traffic that should be allowed on the roadway by motorists. One should consider that this is counter to the fact that bicycles do have lawful status as traffic, and share the same rights and responsibilities as automobiles in regards to the law.

If the bias toward cyclists on the road ended at mere perception, then it would only take a thick-skinned cyclist to not feel any effects of the hostile conditions on the road. However, there is a phenomenon known as *altruistic punishment*. *Altruistic punishment* exists hand-in-hand with the real or even *perceived* free rider. Psychologist Tom Stafford shows this coexistence with the *free rider* problem in the resentment that occurs when there is the perception that others are cheating. In other words, Stafford states that participants get angry when they think that someone else is getting away with something by breaking society’s agreed upon rules. Society’s answer to this is to then punish the cheater in some way in order to restore order or balance.⁸ This punishment is known as *altruistic punishment*.

In a landmark paper by Ernst Fehr and Simon Gächter, titled *Altruistic Punishment in Humans* shows that altruistic punishment not only provides a solution to the *free rider* problem, but there are heightened levels of cooperation among members of a group when there is perceived *free-riding* occurring. This cooperation is aimed at punishing those free riders, as everyone in the group would be better off if free riding were deterred. However, the important thing to note about *altruistic punishment*, is that there is absolutely no gain to be had from punishing others, rather only the perception of gain, because it yields no material benefits for the punisher. The opposite is true for the

7. Stafford, Tom. "The Psychology of Why Cyclists Enrage Car Drivers." BBC Future. February 11, 2013. Accessed October 06, 2014.

8. Perry, Susan. "Why Motorists Get so Angry at Cyclists - a Psychologist's Theory." MinnPost. February 20, 2013. Accessed August 5, 2014.

punishers, as they incur a *greater* cost on some level, be it monetary, time, effort, risk to safety, etc., than if they had ignored the free rider.⁹ In other words, once someone is identified as a free rider, the rest of the group has a natural tendency to band together and punish the individual or individuals perceived to be the outlier or free rider. Members of the group, now, with this perceived strength and approval of their peers, will go out of their way to inflict some sort of punishment, which they are able to justify as restoring order, and receive no benefit or reward, other than the self satisfaction that they were the ones delivering punishment.

Far too often, cyclists are on the receiving end of escalated altruistic punishment, due in part to the sociological effects the automobile enclosure. Not only are drivers angry at cyclists at being on *their* roads, there is a noticeable trend at the escalation of road rage against cyclists due to the physical separation caused by the vehicle. Motorists are free from the encumbrance of face-to-face contact and therefore feel free to engage the cyclist and carry out their altruistic punishment. Many motorists feel that they are well within their right to yell obscenities, throw objects, cut off, swerve, buzz or speed past a cyclist, as there is little fear of repercussion. They are doing so from the safety of their vehicle, and they believe there is little chance they will encounter the same cyclist again.¹⁰ This can be quite empowering to the motorist, as they feel they are not only acting on behalf of the rest of the motorists on the road in carrying out some form of punishment toward the cyclist, they are more likely to escalate the threat, due to the anonymity they feel from behind the wheel. This phenomenon is seen in the harsh comments that are published online in message boards and social media from the perceived anonymity of the internet.

These psychological principles and subsequent punishments show that one can deduce that there is a real and credible bias against cyclists on the road from some motorists. This is not to say that motorists are solely responsible for the hostile conditions that cyclists face on the road, as cyclists themselves play a large part, not only in simply riding, but in how they ride. One can assume that there will always be individuals who simply do not like cyclists, either from perceiving that cyclists are free riding, ignorance of the law, believing that bikes do not belong on roadways, or from the simple fact that they have to share the roadway.¹¹ However, in spite of these individuals, only by first knowing these underlying phenomenon that enable such a hostile environment on the road to exist, can a solution be envisioned.

Examining only one side of an issue leads to incorrect information, obvious bias, and ineffective results. Looking further into how to make the roads safer for cyclists, I discovered a number of interesting facts directly related to the

9. Fehr, Ernst, and Simon Gächter. "Altruistic Punishment in Humans." *Nature* 415, no. 6868 (2002): 137-40.

10. Hurst, Robert. *The Art of Urban Cycling*. Helena: Falcon, 2004, 34-35.

11. Mionske, Bob. *Bicycling & The Law*. Boulder: VeloPress, 2007, 236.

behavior of cyclists on the road. Not only is the mere presence of cyclists on the road an issue for motorists, but *how* those cyclists ride can have a multitude of consequences that go well beyond the interaction of a single cyclist or group of cyclists and surrounding motorists, and can have long-lasting effects.

The final psychological phenomenon we need to understand, especially in how it relates to how a cyclist rides, is known as the *affect heuristic*. It is because of this principle that we can obtain a greater understanding of motorist's negative attitude towards an otherwise law-abiding cyclist, and how a solution can be reached. Behavioral economist Daniel Kahneman has defined the phenomenon of the *affect heuristic*, as he states that our minds, when faced with a difficult question (one that would require logic and reason to answer) often produce illogical answers. Those conclusions are reached through drawing on previous experience, and often emotionally charged, pre-existing conclusions. Simply stated, instead of looking at a situation thoughtfully and logically, people have a tendency to jump to a conclusion based on their previous experience.¹²

With the knowledge of *negativity bias* and *negativity dominance*, as well as the affect heuristic, one can easily see how a single negative interaction with a cyclist may have far-reaching effects. Suppose a motorist sees a cyclist and is unsure of how to proceed around the cyclist on the road, as the cyclist is weaving and swerving through traffic, until that cyclist abruptly turns without signaling. When that motorist sees another cyclist riding along the roadside, no matter if that cyclist is riding predictably and following traffic laws, the motorist will have a tendency to regard that cyclist in a negative light, simply as a result of the previous negative encounter.

A recent example of this hostility can be seen in a series of videos posted by Piedmont, Alabama resident. These videos were recorded over a period of time in 2013 and 2014 as he was driving his automobile. He cited his displeasure with cyclists on the road, saying multiple times that he should, and in fact would next time, "run them in the ditch" with his automobile. An escalation in his displeasure and contempt for cyclists is seen through the progression of videos until a final video in May of 2014. In this video, he repeatedly refers to cyclists as "pieces of crap" and he is seen deliberately accelerating his automobile to over sixty miles per hour, in dangerously close proximity to the cyclists, and can be heard yelling that he hoped that he had in fact scared the cyclists. Multiple times through the many videos, He is quoted as saying "God I hate bicycles."¹³ This man was subsequently arrested and charged with reckless endangerment of the cyclists after posting these videos online through social media.¹⁴

12. Saks, Jim. "The Science Behind Your Hatred of Cyclists." Slate Magazine. September 24, 2012.

13. McCord, Jeff. "Keith Maddox Premeditation." YouTube. May 21, 2014.

14. "Piedmont Man Charged after Viral Video Threatening Cyclists." Anniston Star, May 22, 2014.

Chapter 3

With my research into understanding hostilities faced on the road by cyclists complete, one would see an impossible task of making the roads safer for cyclists, but by identifying and understanding these psychological phenomena, I found where a solution can be constructed and implemented. There are many other cycling initiatives that exist today. These include programs and campaigns such as *People for Bikes*, *Bikes Belong*, *Yield to Life*, and numerous *Share the Road* campaigns which are all aimed at the motorist and not the cyclist. Another initiative is *Critical Mass*, in which cyclists in urban areas purposefully ride en masse through heavily congested areas, in an attempt to show that bikes belong on the road as well as cars. However, approaches such as critical mass often involve a group of 4000 or more cyclists hosting an event without a permit, riding through city streets, running red lights, congesting traffic, and ultimately *causing* the exact negativity associated with bicycles on the road that they are trying to prevent.¹⁵ Consequently, this is not an effective solution.

These programs are focused on the issue of the motorist being the one that can make a difference on the road. This is the knee-jerk, affect heuristic-based, emotional answer to the problem of making the roads safer for cyclists. Without motorists, roads would be much safer for cyclists, but in order for a peaceful coexistence to happen, it is the conclusion that the *cyclist* is the one that can have the most influence in making the roads safer.

A recent study found that there are more Americans riding bicycles now than ever, with over 103 million individuals, ages three and older, taking at least one ride on a bicycle in 2014.¹⁶ However, in 2012 (the latest statistics available) there were an estimated 49,000 cycling related injuries in the United States. During that same year, there were 726 cyclists killed in crashes involving bicycles and motor vehicles. Luckily these numbers represent a downward trend in the number and fatalities of cyclists on the road. 2001 saw 732 cyclists killed on the road, but only 45,000 cycling related injuries. While a difference of six fatalities may not be statistically significant, the increase of 4000 cycling related injuries over the same time period is quite significant. With more cyclists on the road, there is an increased chance for injury, and the overwhelming majority of those injuries (29 percent) come from being struck by a car.¹⁷

15. Roriguez, Sabrina. "Miami Police Chief: Critical Mass Organizers Could be Held "Liable" if Ride Continues." Miami New Times, June 25, 2014.

16. U.S. Bicycling Participation Benchmarking Study Report. Report. Breakaway Research Group, 2015.

17. "Pedestrian and Bicyclist Crash Statistics." Pedestrian & Bicycle Information Center. 2013.

There is no denying that road cycling is a dangerous activity, when utilizing the same roads as automobiles. The League of American Bicyclists recently ranked the state of Alabama dead last in terms of friendliness to cyclists. This was based on a number of factors, such as a lack of a safe passing law, no form of bicycle education for police, lack of safety emphasis in highway planning, and a complete absence of cycling information or interaction questions within the state drivers license exams.¹⁸ Having no formal indication from government or authorities that cyclists have a right to the road as well does nothing to improve the perception of cycling. For the state of Alabama this only strengthens the notion with non-cyclists and ultimately motorists that bikes do not belong on the road.

18. "Ranking." Home Page. Accessed August 26, 2014. <http://bikeleague.org/content/ranking>.

Chapter 4

With the discovery of these alarming statistics, it became obvious to me that the scope of my visual solution of *Safer 4 Cyclists* should also address basic cycling safety, which has many overlaps with making the cycling environment safer. As I continued research, I realized that this project had the potential to be so much more than a purely academic endeavor. I set out to create a campaign that would be shown publicly at the *Noble Street Festival* in downtown Anniston, Alabama. This campaign was a part of the festival, and not a creation of imagery that was meant to be shown in a gallery space. This non-traditional method of exhibition would allow this project to grow and reach a real world and targeted audience, becoming vastly more important and effective, as there would be the potential for saving not only injury but lives as well.

The *Noble Street Festival* is held annually in conjunction with the *Sunny King Criterium*, a race on the National Criterium Calendar, that draws a field of top men and women professional cyclists, as well as hundreds of amateur racing cyclists. This festival has twice been named a Top 10 Event by the Alabama Tourism Department, putting it on par with such events as the *Hangout Music Festival* in Gulf Shores, and the annual *Iron Bowl* collegiate football game.¹⁹ Thousands of spectators attend the *Noble Street Festival* every year, watching the races, participating in events, listening to music, and dining opportunities from many of the local restaurants set up on a large closed off section of Noble Street for the “Taste on Noble.”²⁰ This mix of cycling and general public is the perfect venue in which to showcase cycling safety, among the pedestrian-friendly, blocked off streets of the festival.

I was invited, along with select group of other local artists, to meet with Anniston Mayor, Vaughn Stewart, in February of 2015. Mayor Stewart is both a supporter of the arts, as well as a major facilitator in improving cycling in the local areas. In fact, with Anniston hosting the Sunny King Criterium race, and with the close proximity to the Coldwater Mountain Bike Trails, and the future expansion of the Chief Ladiga Trail into Anniston, it is Mayor Stewart’s vision that Anniston be “Bike City, USA,” the premiere cycling destination in Alabama.²¹

This meeting was also the impetus from which the Pop Up Art Gallery was created. Alabama State Senator, Del Marsh, is the owner of a vacant building in downtown Anniston. Senator Marsh wants to have development in the building, but only as long as it fits within the long-term vision for the city and its rejuvenation of downtown. Mayor Stewart plans for the building to become the home to a new cultural arts center, in which there is a dedicated gallery

19. "Alabama Tourism Dept. Names Top 10 Events for 2015." - WSFA.com Montgomery Alabama News. January 3, 2015.

20. "Noble Street Festival." Sunny King Criterium ». Accessed March 20, 2015. <http://www.annistoncycling.com/noble-street-festival/>.

21. Burch, Edward. "Anniston on Path to Becoming "Bike City"" Anniston on Path to Become "Bike City" June 19, 2013.

for artists to exhibit their work, as well as studio space in which to work. Mayor Stewart asked myself and the other artists present, if it would be possible to host an event in conjunction with the Noble Street Festival. My work, *Safer 4 Cyclists*, would be a big part of this, as there would be a strong connection between the Pop Up Gallery and the Noble Street Festival. Other local artists were also invited to participate in the event. As this gallery space was on the ground floor, opening to Noble Street, in the middle of the festival, it would be the perfect venue in which to exhibit my body of work.

During this time I was also invited to meet with Jack Plunk, the Director of the East Alabama Planning Commission, along with others to review and offer opinions and changes to the initial draft of the newly created Anniston Area Bicycle/Pedestrian Program.²² With the extension of the Chief Ladiga Trail into Anniston, and the vision for Bike City, USA, it was a very valuable resource in which I could see the infrastructure beginning to take shape for dedicated bicycle lanes, which would provide the opportunity for even more cyclists to be able to ride. Even as far back as 1996, the US Surgeon General stated through a landmark report on physical activity that 53 percent of people who had cycled to work in the previous year would actually commute to work by bike if they could do so on “safe, separated designated paths.”²³ Having more cyclists on the road is great for the sport and the community, but it also stressed to me the importance of the work I am doing with this project, as there is even a greater potential for impact, and making a difference in safety on the road with the possibility of new cyclists riding.

22. Plunk, Jack. Facility Design/Installation Manual. February 2015. Anniston Area Bicycle/Pedestrian Program, East Alabama Planning Commission, Anniston.

23. Mapes, Jeff. Pedaling Revolution How Cyclists Are Changing American Cities. Corvallis: Oregon State University Press, 2009, 196.

Chapter 5

The key to success for *Safer 4 Cyclists* is simple. Cyclists need to be aware of the situation in which they are riding, understand that it can be an unsafe and hostile environment at times, but take responsibility for their own actions while riding within the guidelines of the law. Numerous motorists have complaints of cyclists such as running red lights, cutting off traffic, riding without helmets, and generally riding in an unsafe manner.²⁴ This leaves motorists frustrated and many times unwilling to share the road with cyclists as these actions ultimately make cycling less safe, and cause more hostility toward cyclists.

By following these few steps toward safety, cyclists can become active participants in bettering the riding conditions for everyone. By utilizing the same psychological principals that make cycling appear dangerous, and an unwarranted use of paved roadways, cyclists can change this perception. By simply following the law, riding predictably, and riding safely, a single cyclist is able to set the example for other cyclists. Just as the perception of the free rider encourages others to free ride in a given situation in a linear fashion, the exact opposite is true also.²⁵ This works greatly in the cyclists' favor by simply being observed stopping at a stop sign, others can see that a cyclist is following the law, and more importantly, not flaunting this rebellious act of not following the rules of the road.²⁶ By having others witness cyclists following the law, or even riding correctly, there can be an increase in the number of cyclists who are riding safely as the perception would be that there are fewer other cyclists breaking the law. Just as free-riding encourages others to free rider in a given situation, the opposite is true: the reduction of free riders encourages others to not free ride, or engage in those acts, such as riding in an unsafe manner.

An increase in cyclists riding in a safe manner yields an increased visibility by motorists of those cyclists riding correctly. This directly influences the affect heuristic of when a motorist encounters a cyclist in the future. By lessening the negative encounters a motorist has, the more likely a motorist will have a positive outlook on the next cyclist he or she encounters on the road. Granted, there is still a lot of work to be done in improving the perception of bikes on the road, as one negative encounter still outweighs numerous positive encounters, due to negativity dominance, but reducing the number of negative encounters is something that all cyclists can actively do.

Cyclists riding correctly also promotes a less hostile environment in a number of other ways. Other campaigns—

24. Walker, Amy. *On Bicycles*. Novato: New World Library, 2011, 200.

25. Raihani, Nichola J. "Free-riders Promote Free-riding in a Real-world Setting." *Oikos* 119, no. 9 (September 01, 2010): 1393.

26. Walker, Amy. *On Bicycles*. Novato: New World Library, 2011, 201.

Such as *Critical Mass* and *Share the Road*—focus on trying to get motorists to recognize that cyclists have rights on the road, but there is no motivation for a motorist to do so, if cyclists continue to ride as if they only have rights, and no responsibilities on the road.²⁷ By riding safely and in a courteous while sharing the road with motorists the cyclists themselves can continue to passively assert that bicycles do belong on the road. By riding as if they belong, and upholding their responsibilities as an integral part of the traffic system, cyclists can show that they in fact do belong on the road, and are not some free-riding and outlying entity that only wishes to cause inconvenience to motorists. If cyclists want the respect and acknowledgment that they belong on the road, cyclists must first act like they do belong on the road and not make conditions worse. Granted, some motorists will always have a negative opinion, and will continue to act out their own altruistic punishment, such as throwing bottles, grazing and running cyclists(such as Brad Cox)²⁸ off the road. But with cyclists doing their part, there can be a positive shift in improving the perception of bicycles sharing the roadway with motorists.

27. Mionske, Bob. *Bicycling & The Law*. Boulder: VeloPress, 2007, 214.

28. Miller, Brandon. "One on One with ... Cyclist Brad Cox." *The Anniston Star*. May 28, 2014.

Chapter 6

With the research completed, and the format of the pieces determined, I then set about to create the actual body of work. I determined that the best approach to reach the widest audience was to create each graphic so that each one contained a single and important message directly aimed at the cyclist. Each message would be based off of a simple action that a cyclist could do, that would contribute toward keeping them both safe on the road, but also improving the hostile environment that road cyclists face as a result of motorists. These pieces were created with the intent of not only having the message completely viewable and understandable at a glance by someone walking past, but they were to also designed to be engaging on multiple levels, in both type and imagery. Andrew Shay notes in *Designing for Social Change*, “a single logo or poster design rarely addresses the totality of the social issue that prompted the designer’s engagement in the first place... designers need to find ways to get to the root of the problem.”²⁹ With the root of the safety issue thoroughly researched, multiple easily-consumed messages regarding the steps an individual cyclist can take, yields the ideal visual solution.

The central thematic approach for each piece is that there are multiple layers, creating depth within each work. This depth is present within both the type and imagery. While the typography of the main message is easily consumed, digested, and understood at a glance, the treatment of the type, and the imagery are all manipulated in such a way as to create pause with the viewer, allowing a secondary exploration of the work to happen. The viewer is drawn in to discover the additional information in the smaller type and additional imagery.

There is a distinctly postmodern approach to each panel exemplified by the slightly deconstructed treatment of type and heavily manipulated imagery. The type for each piece was designed with many traditional rules of typography being broken. British designer John Lewis said in his 1963 book, *Typography: Basic Principles*, that once “One knows what are the correct procedures one can look at them critically and see whether by deliberately flouting them can anything be added to methods of communication.” Lewis also strongly believed that there was a place for illegibility, if it would serve the message by adding some excitement.³⁰

Design historian Philip Meggs notes that non-linear and non-traditional typography still results in a ‘vigorous structure’ not chaos, as the underlying order has not been destroyed so much has been dynamically rearranged.³¹ By

29. Shea, Andrew. *Designing for Social Change: Strategies for Community-based Graphic Design*. New York: Princeton Architectural Press, 2012.,9

30. Poyner, Rick. *No More Rules: Graphic Design and Postmodernism*. New Haven, CT: Yale University Press, 2003, 12.

31. *Ibid*, 49.

manipulating the typography in such a way that baseline shifts, multiple sizes, varied tracking, and physical separation words are all present, I am creating a message that is at once both readable, as well as visually engaging. In order for this method of typographic treatment to work and not devolve into a mere scattering of illegible words, a single typeface was used, Univers. This allows a visual consistency between each individual piece, as well as enough familiarity between different typeface weights, that visual interest (yet maximum legibility and clarity) could be created, even with such distressed type.

This typographic treatment allows for the creation of new hierarchical elements as well, allowing a stronger visual link between the type and the imagery of the piece. Katherine McCoy describes the use of theory at the Cranbrook Academy of Art as a “visual transaction that parallels verbal communication” and “rejecting the faith in the scientifically predictable transmission of meaning... New experiments explored the relationship of text and image and process of reading and seeing, with texts and images meant to be read in detail, their meanings decoded.”³² By manipulating the type, and including smaller elements that are designed to be read only upon closer inspection, a circular method of interaction is created where the viewer, with this new information, can view the piece again from start to finish, quickly, but with a heightened sense of appreciation of the message at hand.

Take for instance the piece “Never Assume.” This piece is constructed with imagery of both a broken bicycle and an automobile, with the main message of “Never assume you have the right of way.” A rectangle is removed from the image of the automobile, moving the eye through the piece, and into a blurred version of the bicycle background. The smaller type gives additional meaning to the piece, specifically that failure to yield can ultimately be fatal, because the driver of an automobile may not stop even if they are supposed to do so. The last image one sees, and the smallest, is the a bicycle painted white with a simple sign reading “RIP David Perkins.” Known as a “ghost bike,” these serve as roadside memorials for cyclists who were struck and killed by motorists. These smaller elements to the piece, as well as the highlights noting the broken bicycle parts, and the broken windshield, all now take on a much more personal and impactful meaning once viewed. The viewer is able to understand that not only should a cyclist not assume that they have the right of way, but that by not doing so, cyclist David Perkins was struck and killed by a motor vehicle, and that the broken bike and smashed car were actually from the crime scene in which he was killed. Through subtle manipulation of the type, I am simultaneously creating an image that appeals and delivers a strong message to the widest possible audience. The root of the message can be easily understood, but

32. Poynor, Rick. *No More Rules: Graphic Design and Postmodernism*. New Haven, CT: Yale University Press, 2003, 51.

with the piece being much more visually engaging than type superimposed over a background image, I am creating that pause that allows for a deeper exploration of the piece, and its message.

Many designers and critics view a postmodern aesthetic such as these works to be aberrations,³³ however notable designer Wolfgang Weingart states in *My Way to Typography*, that “Typography has one plain duty before it and that is to convey information in writing.” Weingart goes on to state that by pushing the limits of what is deemed ‘legible’ he discovered that words or word groups became graphic in expression and that understanding the message was less dependent upon reading than had originally been supposed.³⁴ By forming word groups, introducing artificial hierarchy into the type, and manipulating other elements of the type, all while using restraint, I am able to create a visually-engaging composition with the typography in each piece that still maintains legibility but is striking enough and removed from traditional typographic standards to give the viewer a reason in which have a longer engagement with the work, and ultimately a deeper understanding of the message.

Restraint is a key limitation used within each piece, because without, both type and imagery can devolve down into a hodgepodge mashup of bad type and even worse imagery, that while beautiful in a fine art context, conveys no actual useful information, if it is even able to be decoded at all, much like the bulk David Carson’s work. Carson, being not a trained designer but educated as a sociologist, often designed on instinct alone, oblivious of the traditional rules and principles of design.³⁵ This is evident in much of his work, as the viewer is often left wondering what the intended message was. Restraint, especially when delivering a message that could help to save lives, is of absolute importance.

The remaining pieces that comprise *Safer 4 Cyclists* each contain a single message, direct, and to the point, made visually engaging by the non-traditional imagery and treatment of type that pointedly state what a cyclist can do to improve their safety on the road. However, the effects of a cyclist following these steps have far-reaching consequences for improving safety, and a much larger scope than just making the cyclist safe when they carry out the call to action within each piece.

“Ride Predictably” has a straightforward message directed at the cyclist, that indicates when riding, it is best to signal turns and to not weave through traffic. The actual implementation of these simple steps however, affect not

33. Harper, Laurel. *Radical Graphics/Graphic Radicals*. San Francisco: Chronicle Books, 1999, 17.

34. Weingart, Wolfgang. *Typography*. Baden, Switzerland: Lars Müller, 2000, 278-279.

35. Harper, Laurel. *Radical Graphics/graphic Radicals*. San Francisco: Chronicle Books, 1999, 17.

only the motorists that a particular cyclist encounters, but those actions can have an influence on the *next* cyclist that particular motorist encounters. “Here comes another cyclist,” Grant Peterson writes in *Just Ride*, “I wonder if he’s as oblivious and suicidal as the last one...”³⁶ Just as negativity dominance makes those negative events stand out more vividly in the mind and the affect heuristic shows that we are more prone to jumping to conclusions based on past experiences, there is a greater likelihood that the assumptions about a cyclist will be negative if that motorist has had a negative encounter with a cyclists in the past. However—and this is where the implementation of these simple steps regarding cycling safety can make the most impact—if cyclists replace those possible negative interactions with motorists with positive interactions, and do so consistently, cyclists are directly improving their safety on the road.

Two pieces within *Safer 4 Cyclists* roughly cover the same aspect, coming to a complete stop at intersections for both stop signs and traffic lights. Not only does a cyclist reduce his or her chance of being struck by a vehicle by stopping at these intersections, but nothing increases bias against cycling like what motorists perceive to be widespread evasion of traffic laws by cyclists.³⁷ By addressing issues such as these, at the very level in which they occur, cyclists are able to make a difference in improving safety and reducing the hostility felt on the road.

36. Peterson, Grant. *Just Ride: A Radically Practical Guide to Riding Your Bike*. New York: Workman Publishing, 2012, 38.

37. Mapes, Jeff. *Pedaling Revolution How Cyclists Are Changing American Cities*. Corvallis: Oregon State University Press, 2009.

Chapter 7

From the beginning, *Safer 4 Cyclists* was designed to be unveiled at the Noble Street Festival, on March 28 2015. While this is a departure from the traditional presentation of thesis work in an academic setting, it was a vital aspect of the entire project. *Safer 4 Cyclists* is a real-world project with actual life-saving potential. Where many other projects may come to a state of completion upon exhibition, *Safer 4 Cyclists* is designed so that the exhibition is only the beginning of its service. In addition to the ten modular panels, I also created the website, safer4cyclists.org to allow for further collection of data, and education of the simple steps depicted in the panels.³⁸ This website reaches a broader audience than what a single showing of the thesis work could accomplish. While there were hundreds of attendees at the Pop Up Gallery space during the Noble Street Festival, there is the potential to reach many more individuals by having this web presence. The website is not limited to existing merely as a digital version of the body of thesis work. Additional information and insight into each piece and message can be learned from the site, as each work has a corresponding in-depth description. This continues the overall visual theme of having multiple levels of engagement with the viewer.

I formatted the website as a single scrolling page with a few considerations in mind. This single page layout would allow me to easily add additional content in the future. It also mirrors the linear presentation of the body of work at the Pop Up Gallery in which each piece can be viewed singularly, or can be briefly scanned by simply scrolling. With multiple levels of engagement within each piece, the main message of each work can be easily read by everyone, yet there remains more information to be discovered.

Safer 4 Cyclists is a real-world project with a specific targeted audience. Because of this, it was treated with the main emphasis being placed on getting the information in front of cyclists. In order best serve these cyclists, especially within the state of Alabama, I also created an online survey in order to collect data from patrons at the Pop Up Gallery. This survey is linked via a static graphic on the *Safer 4 Cyclists* webpage so it is accessible at all times to anyone viewing the site. Both the website and the survey were available at the time of the Noble Street Festival, and at the time of this publication, there have been a total of forty-one individual responses recorded. Through the website Survey Monkey, I was able to formulate a brief questionnaire that collected responses from a variety of questions ranging from: cycling involvement, motor vehicle ownership, how long it had been since an individual

38. Benefield, Joshua T. "Safer 4 Cyclists." Safer 4 Cyclists. March 27, 2015. <http://safer4cyclists.org/>.

had ridden a bicycle, their experiences on the road with cyclists, and the perception of the level of safety that exists when cycling on the road, as well as interest in the addition of dedicated cycling lanes and paths.³⁹ While the data collected so far is only preliminary, there is an overwhelming majority of participants who have witnessed cyclists running stop signs or red traffic lights, and a vast minority, barely ten percent of participants, who view the roads as being safe for cycling. Only 28 percent of participants answered that while cycling, they had experienced any type of hostility from motorists.

This survey is on-going, as *Safer 4 Cyclists* and its public debut at the Noble Street Festival were the launching point, and not a resolution for a purely academic body of work. I expect to collect more data, as well as personal comments, in order to obtain a data set of the cycling environment, as well as the perception of safety on the road as a whole. This will allow for the creation of subsequent pieces of work for *Safer 4 Cyclists* by identifying additional issues and formulating their visual solution.

39. "Safer4Cyclists." Survey. March 27, 2015. <https://www.surveymonkey.com/r/CLT72LR>.

Chapter 8

Conclusion

With *Safer 4 Cyclists* having a nontraditional exhibition, in a real world setting, I was able to reach the target audience where this work can have a direct impact. The body of work is only in the beginning stages of its implementation, as the collection of data and the website enable a broader audience that can be reached.

The public's reaction to *Safer 4 Cyclists* has been positive since being unveiled. I was even approached by the Ride Director of the Cheaha Challenge, Brooke Nelson, who after seeing this body of work, invited me to prominently show the work at the upcoming 2015 Cheaha Challenge Gran Fondo. The Cheaha Challenge is the largest organized bicycle ride in the state of Alabama, with cyclists attending from all over the nation to both ride and compete. The Cheaha Challenge hosts the 23rd edition of the ride this year.⁴⁰ With the potential to reach well over 500 cyclists in a single day, this would be a great step forward for *Safer 4 Cyclists*, and a great step toward in getting more people actively involved in making the roads a safer environment for all.

Safer 4 Cyclists can make a difference in not only increasing the safety of individual cyclists, but it has the potential to have a dramatic effect on the negative perception that many motorists have of road cyclists. Through my research of the negative feelings toward cyclists, I was able to calculate and understand multiple ways in which cyclists were perceived in a negative way. By seeing these issues of negativity, hostility, and perception at their base level, I was able to see that cyclists themselves can have the most direct impact on the root of the problem they face. Once the situation of hostility was understood, visual solutions were created that specifically address issues affecting cyclists on the road. By utilizing the same psychological channels that formed the hostile environment in the first place, cyclists consistently adhering to the simple steps presented in the visual solutions have the potential to make a dramatic impact in the way they are perceived on the road. Road cycling therefore becomes safer, as many of the solutions directly relate to safety issues, and those solutions can have far-reaching effects simply based on motorists viewing cyclists riding safely, and within the rules of the road.

40. "Are You UP for the Challenge?" Cheaha Challenge Gran Fondo. Accessed March 30, 2015. <http://www.cheahachallenge.com/>.

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