Cycling Advocacy, DIY Urbanism and the Transformation of Automobility

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Abstract

Automobile dependency has had a broad impact on Canadian society, and has become one of the most important influences on how cities are planned. It is widely recognized that increasing the modal share of cyclists, as a part of a broader 'complete streets' approach can help alleviate many of the problems associated with automobility. However, the institutionalization of the private automobile in Canadian culture and planning is a significant barrier to more widespread adoption of cycling for transportation. Through comparative case studies in two Canadian cities, this research paper explores the practices of cycling advocates and activists, and their relationship with transportation planning in each city. The objective of this research is to better understand how planners and advocates can create urban transportation systems in which cycling plays a central role. It finds that 'advocates within government' such as planners can play an important part in this transformation, but they rely on several key factors, including: 1) a strong and active cycling community, 2) community ownership of cycling projects, 3) political will. Planners should look to "insurgent" community-based planning and advocacy practices to build the necessary support for the transformative goals of planning.

Foreword

This research paper is the final component of my Plan of Study, which focuses on participation, planning and the politics of mobility. Cycling holds the potential as an important part of a more environmentally sustainable and equitable transportation system, but the needs and experiences of cyclists are often overlooked or ignored in automobile dominated transportation planning and engineering. This paper explores the various discourses and political practices advocates adopt and create, as well as how advocacy groups are involved, and involve themselves, in the formation of urban environments. It is informed by an interest in how mobility shapes the experience of environments, and how, in turn, these experiences shape the physical form of those environments and their use through planning and policy. By examining cycling advocacy and DIY (Do-it-yourself) type responses to auto-oriented urban planning, this paper brings together the three components of my area of concentration: mobility, politics, culture and the production of urban space, and participation in planning.

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INTRODUCTION

Since the early twentieth century, the private automobile has come to dominate urban development in cities around the world, fueled by a mixture of popular technological optimism, oil and automotive industry lobbying, and government funded highway expansion (Paterson, 2007; Furness, 2010). The private automobile promised fast and relatively easy access to areas across previously prohibitive distances, as well as the freedom from the timetables of more collective forms of transportation. Given the promises of automobility, the rise of the private automobile is understandable. Once established, automobility perpetuates itself: building and planning for the private automobile necessitates automobile use, which leads to the need for more automobile infrastructure.

However, the promises of automobility also contain numerous inherent contradictions, which are becoming increasingly clear. As greater numbers of people choose to drive, it becomes increasingly difficult to drive freely. Automobility requires strict regulation. Echoing Sheller and Urry (2000), Rajan (2006) argues that "...freedom is a compulsory constraint, it must be exercised along designated modes, and automobility is its major expression which (re)produces normalizing behaviour in the name of progressing individual liberty" (123). From a social justice perspective, automobile dependence creates significant problems. The dominance of the private automobile in street planning has turned streets into highly exclusive spaces. This exclusion comes in the form of reduced access to mobility for the poor, the elderly, the disabled, and others unable, or who choose not to drive. The car isolates individuals from each other and attenuates social life. Automobility changes the public realm, reducing social contact and introduces inequalities of access to mobility.

At the same time, the private automobile is integral to urban life. Thrift (2004) argues against a common view in the literature on automobility which frames the automobile as an "invader" in everyday urban life. He argues that, instead, they are a very important part of everyday life —their ubiquity has created the cities we now live in (Thrift, 2004: 46). As Freund and Martin (2007) argue, the car is a functional and necessary part of urban life, "...but necessity itself is not a virtue" (41).

While private automobiles are a significant part of everyday urban life, 'hyper-automobility' produces numerous negative externalities. Continued reliance on the private automobile is environmentally and, for many, economically unsustainable. It is our responsibility, as citizens and planners, to transform our present cities to create a more just distribution of mobility and access, and reduce the environmental impact of our transportation choices. Cities and cultures are dynamic and must adapt to changing realities, and a new mobility culture will need to recognize the needs of a wider range of users.

Another Bike Boom?

As the crisis of automobility is becoming increasingly clear, there has been a parallel rise in interest in cycling as transportation. In urban regions, fewer people are buying cars, choosing to walk, cycle or use transit instead. Many North American cities have begun planning for the bicycle —some early adopters include Portland in the nineties, under the leadership of Mia Birk, and Davis, California in the late sixties (Mapes, 2009). In Canada, Montréal was an early adopter of transportation cycling. More recently, other US cities like New York have embraced the bicycle, under the leadership of Transportation Commissioner Janette Sadik-Khan. Ambitious bike plans are now appearing in cities across North America; some recent examples include Chicago (2012), Los Angeles (2011) and Vancouver (2012). Even in cities like Toronto, with council's recent anti-bike rhetoric and the removal of cycling infrastructure, the modal share of cyclists continues to rise (Toronto, 2010).

Despite the long history of planning for the automobile, there is a growing consensus in urban planning and design circles that current urban development and design tends to create streets that are unwelcoming, even hostile, towards non-automobile users. The problems associated with automobility are well recognized in popular discourse, academia, and planning practice, and sympathetic planners and cycling friendly policies are becoming increasingly common. However, difficulties occur when it comes down to implementation: in most cities there is a dissonance between policy and practice; there has been a significant delay between recognizing the problems of automobility and

implementing alternatives. Active transportation is generally supported in policy, but cities stall when it comes to implementing change to create streets that reflect these policies. Often, they require some 'push' from outside the organizational structures of the city, to raise the political will to support significant shifts in how cities approach transportation. None of the increasing number of cities being heralded as 'bike cities' in North America, developed their cycling infrastructure and culture without significant support as well as criticism from outside the state (Furness, 2010; Mapes, 2009).

In cities where urban development has revolved around the private automobile for nearly a century, there are significant barriers in place for more widespread adoption of the type of 'complete streets' that take all road users into consideration. The automobile is firmly entrenched in planning. Institutional and bureaucratic processes designed for the private automobile must change for these policies to be put into practice. As Urry (2004) argues, even if planning for the private automobile is "neither socially necessary nor inevitable, [it] has seemed impossible to break from" (27). Ambitious bike plans, like Toronto's 2001 plan have made minimal progress to date, due to lack of resources and political will. Despite official recognition of cycling as a sustainable transportation choice, a position which should be encouraged, this recognition rarely translates into a shift in practices and implementation of cycling infrastructure. Half a century of planning for the private automobile has firmly institutionalized automobility in planning. In examining the process of redesigning streets in Toronto, Hess (2009) argues that "the daily bureaucratic routines that determine how actual streets are designed and built must be closely examined and changed if newer ideas about the role of urban streets are to be implemented" (1). A commonly repeated theme among interviewees was the feeling that approval of plans is meaningless until changes appear on the ground.

This interest is similar to the bike boom of the nineteen-seventies which saw a renewed interest in cycling and the introduction of the 10-speed bicycle. The 1973 oil crisis, in which Middle-East oil-producing countries imposed an oil embargo, as well as the 1979 energy crisis introduced uncertainty

about the future of easy oil. While there was not significant change in North American cities in terms of cycling infrastructure¹, these oil shocks had a significant impact in many European cities. Amsterdam had been a very bicycle friendly city prior to WWII. However, in the fifties and sixties, the city began shifting towards a more automobile-centric transportation system. Following the energy crises of the seventies, the city began its return encouraging and facilitating cycling transportation, and Amsterdam has since become one of the world's premier cycling cities. An Amsterdam cycling consultant, Roelof Wittinik, interviewed by Mapes (2009), argued that the embargo scared people: "all of a sudden you get a different perspective. We were afraid that we could not use the car in a boundless way" (67). As Pucher and Buehler (2008) note, in Amsterdam "it was only through a massive reversal in transport and urban planning policies in the mid-1970s that cycling was revived to its current successful state" (496). Current uncertainty about oil supplies is fuelling another bike boom, and there is a widespread conviction that this bike boom is here to stay (Reis, 2012; Jensen, 2012; Layton, 2012). While advocates are justifiably skeptical about ambitious plans for enabling urban cycling, there is evidence that some cities are starting to take cycling seriously. Many of these plans are turning to real change on the ground, as seen in Vancouver and New York (Bula, 2012; Gelinas, 2012).

Research Objective

This paper starts with the assertion that North American planning institutions have historically privileged the private automobile, and that it is important that the domination of automobility in urban planning needs to be challenged for reasons of social, environmental and economic sustainability. Increasing the modal share of cyclists, pedestrians and transit users can help alleviate some of the problems associated with 'hyper-automobility' (Freund and Martin, 2007). By looking at some prac-

¹ With the exception of a few cities, such as Davis, California (see Mapes, 2009).

tices associated with this movement, focusing on cycling advocacy and activism, this research explores some of the ways in which cities can move towards increasing the modal share of pedestrians and cyclists. The objective of this research is to better understand how planners and advocates can create urban transportation systems in which active transportation plays a more central role.

There is an abundance of research detailing the potential benefits of increased walking and cycling for the environment (Gardner, 1998; Horton, 2006; Shay and Khattak, 2010), health (Cervero and Duncan, 2003; Freund and Martin, 2007; Greenberg and Renne, 2005; Handy and Xing, 2011; Pucher, Dill, and Handy, 2010; Saelens, Sallis, and Frank, 2003), for safety (Horton, 2007; Jacobsen, 2003; Pucher et al., 2010), for justice and social equity (Boyce, 2010; Fotel, 2009; Mitchell, 2005), as well as for creating more aesthetically appealing urban public spaces (Gehl, 1987; Timms and Tight, 2010). While recognizing that developing and assessing claims about the benefits of active transportation is an important element in this shift, this research focuses instead on the political and cultural aspects of how the shift to a more sustainable urban transportation system can be promoted. My focus is on the roles of institutional actors and advocates in promoting cycling, and the interactions between them. This research contributes to the planning practice by expanding theoretical and empirical knowledge about the barriers to more widespread use of active transportation, as well as what can be done to overcome these barriers.

In view of the abundance of support in the literature for the benefits of active transportation, research which addresses the barriers to implementation and how to overcome these barriers are of increasing value. While supportive policy and planners appear to be in place in most cities, the institutionalization of automobile-centric planning practices have created a significant barrier to making cycling a viable transportation option in most North American cities. This research looks at how planners and advocates both within and outside of government might overcome this institutionalization of automobility and move towards creating more sustainable urban transportation systems.

While interest in collaborative and participatory approaches in planning continues to grow², public participation in transportation planning decisions remains quite limited. After initial interviews, it appeared that Brown's (2006) claim that transportation planning is particularly resistant to broadening citizen participation was valid in both Toronto and Calgary. The perspectives or rationalities of other road users, such as cyclists, are often not included in transportation planning decisions. While formal consultation with cyclists in both municipalities has been minimal in the past, both cities have active and growing communities of advocates and activists working to ensure their respective governments are aware of cyclists needs. While municipally facilitated consultation and participation in bike planning remains of interest in this study, its focus will be on the practices and impact of cycling advocates and activists.

Research Methodology

This qualitative research is based on a comparison of exploratory case studies in Calgary and Toronto. Comparative case studies were chosen to help illuminate the influence of political and cultural factors on cycling advocacy and activism. Automobile dominated society, and the efforts to challenge and transform it are highly complex phenomena, and understanding them requires a consideration of numerous factors. Cultural representations of mobility, political discourse, policy and everyday mobility practices are continually influencing and changing each other. Case study research methods emphasize considering all of these diverse factors to create a more detailed image.

In order to understand the role and approaches of advocates, I conducted semi-structured interviews with comparable groups and individuals in each city, who act in a range of formal and informal roles in the planning system. The interviewees were chosen to ensure they represented the diversity of pro-cycling practices adopted, and were identified from some initial research on both cities. The spectrum of positions ranged from more subversive actions, such as the installation of DIY

² Full discussion is beyond the scope of this paper, but see for example, Arnstein, 1969; Brownill and Carpenter, 2007; Healey, 2003, 1997; Margerum, 2002.

(do-it-yourself) bike lanes, to informal DIY community bike shops, to more formal advocacy and lobbying organizations for cyclists. These interviews are supported by an analysis of cycling policy and media coverage in each city to provide background and further elaborate on context.

The comparison of Calgary and Toronto will help to demonstrate the impact of these shifting political and cultural norms on the potential for creating more sustainable transportation networks. The current state of cycling policy, infrastructure, and advocacy initially appeared to be quite different in Calgary and Toronto. Toronto has a strong history of cycling advocacy, and while its 2001 cycling plan was neglected, there was still much support from the City. Following the 2010 election of Mayor Rob Ford in Toronto, there appears to have been a distinct shift in dominant attitudes towards cycling in city hall with the rise of some anti-cyclist rhetoric in the political discourse, even though numerous councillors have maintained cycling friendly positions. Most prominent is the mayor, who would appear to be actively cultivating an anti-cycling image. As a councillor he famously described cyclists as "a pain in the ass" (quoted in Meslin, 2012). Ford's inauguration speech, given by Don Cherry included a dig at "bike riding pinkos," (quoted in Mick, 2011), and a request from the deputy mayor that the city stop electing cyclists to council (quoted in CBC, 2012a).

In Calgary, until quite recently, the municipal government has treated cycling as a recreational activity. Calgary has a popular and extensive network of off-road trails, but only 12 km of on-street, marked bike lanes. There have been past advocacy efforts aimed at pushing the city to build more on-street cycling infrastructure, and Bike Calgary, the city's major cycling advocacy group, has existed as a web forum since 2006 (Gruttz, 2012). As a result, advocacy and popular interest have been on the rise in recent years. In contrast to Toronto's recent difficulties in promoting cycling, there has been a shift in attitudes towards cycling in Calgary City Hall. A number of factors have contributed to this shift: the recently elected Mayor Naheed Nenshi is supportive of building a cycling culture and creating transportation options in the city (Gordon, 2012; Jensen, 2012), and a new culture of engagement is giving cycling advocates a stronger voice (Macaulay, 2012). The recently published

cycling strategy and dedicated bike lane pilot project on 10th Street NW pointed towards a shift from viewing cycling as a recreational activity to a legitimate and important form of transportation in Calgary. In city hall, opposition to cycling projects is typically connected to costs, and less to an opposition to putting cyclists on the road.

Outline

This paper is organized in two major sections: the first is a literature review focusing on the politics of mobility, automobility, and some responses to automobility by academics, activists, and planners. The second half is dedicated to the case studies at the core of this research: each examining the state of cycling in Toronto and Calgary. The case studies are presented together, and are organized thematically. The section begins with a description of the historical development of cycling in each city since the last 'bike boom' of the 1970s, with a focus on the events since the late nineties leading to the present 'bike boom.' Following this, the paper looks at the politicization of cycling in the two cities. Finally, case study section looks at the range of approaches taken by advocates in each city in response to municipal action, or inaction, on planning for cycling. The paper concludes by considering the potential for transforming the institutionalization of automobility in each city, given the evidence found in the case studies.

LITERATURE REVIEW

Cycling Design and Policy Research

A growing body of research focuses on design and policy which encourages cycling in cities. Until recently, street design principles in North American cities have typically been targeted towards facilitating the use of the private automobile, and other uses have clearly been secondary. As Freund and Martin (1993) have noted, "it has been said that most transport planners see the world from a windscreen (or windshield) perspective —from the point of view of drivers who rarely use mass transit, who seldom cycle or walk" (4). Well-intentioned cycling projects fail because they are not based on the actual experience of the cyclist. Forsyth and Krizek (2011) argue that "cyclists have needs from the standpoint of urban design that substantially differ from pedestrians, motorists or transit users... full provision for their needs is unlikely to come to fruition until their perspective is more formally acknowledged in research and through design guidelines" (532). While many cities are shifting towards encouraging more use of active transportation, these efforts are still often limited by a misunderstanding of the needs and experiences of cyclists. Cycling-oriented urban design would require designers and planners to see the world from the bicycle, rather than the windshield. However, as Forsyth and Krizek (2011) argue, "not enough is known about the view from the bicycle. Research on cyclists' perceptions and experiences is an important area for future work" (4). Save for becoming commuter cyclists themselves, closer collaboration and consultation with cyclists is key for planners to effectively plan for cycling.

Much of the current research on cycling facility design looks at the use of separated bike lanes. A study from a group of researchers lead by Anne Lusk from the Harvard School of Public Health found that cycle tracks have a 28% lower risk of injury than comparable reference streets (Lusk et al., 2011). In addition to improving the safety of cyclists, the Montréal cycle tracks in the study were found to attract 2.5 times more cyclists than the reference streets (Lusk et al., 2011). Pucher and Buehler (2008), looking at high levels of cycling in some European cities, find that the perception of

danger on roads is a significant deterrent to cycling (508). They conclude that "the most important approach is provision of separate cycling facilities along heavily travelled roads" (Pucher and Buehler, 2008: 523). These types of facilities were also the types identified as ideal by the majority of my interviewees.

While proper infrastructure is only one element of a more holistic approach to cycling promotion, which would include education and legal aspects, infrastructure plays a very important role in that it increases the accessibility of cycling. As cities with minimal cycling infrastructure demonstrate, people will cycle regardless of whether dedicated, safe infrastructure is in place. However, to expand cycling beyond these 'fearless' cyclists to include those cyclists that are 'interested but concerned' about cycling for transportation, infrastructure is key.

The objective safety effect of separated bike lanes is still debated. Forsyth and Krizek's (2011) review of research on the topic found that it is "difficult to disentangle the contribution of facilities alone" because most often cities which provide high-quality cycling also provide varied cycling initiatives as well, such as education and parking for cycling (542). Similarly, Heinen et al. (2010) find in a review of research on commuter cycling that the effect of bicycle infrastructure on objective safety remains unclear, but that "subjective safety levels are higher when dedicated bicycle facilities are present" (63).

Regardless of the objective safety effects of separated cycling infrastructure, the perception of safety is key to supporting increased cycling. A study by Larsen and El-Geneidy (2011) on separated cycling facilities in Montréal found that cyclists will go out of their way to use bike facilities separated from automobile traffic, adding, on average, 2 km to their trips to access separated facilities. The same study also found that the longer and more connected the separated facilities are, the more likely cyclists are to go out of their way to use them. Larsen and El-Geneidy's (2011) study confirms that separated facilities are a good way to increase cycling ridership and "the preference for physically-separated facilities among more infrequent cyclists suggests that this facility design is the

obvious choice in encouraging new and novice cyclists" (175). Winters et al. (2011) also found that separation from traffic is one of the most important motivators for adopting cycling for transportation. Separation was the third most important factor, only slightly less significant than the route being away from traffic noise and air pollution and the route having beautiful scenery. Streets with high traffic speed and volume were among the greatest deterrents to cycling. Winters et al.'s (2011) report argues that the ability to physically separate bicycle infrastructure should be a key consideration in creating new routes. While the correlation between facility type and safety is still debated it is clear that the perception of safety increases the number of new cyclists, and, in turn, greater numbers of cyclists will increase cyclist safety.³

A view of street design from the cyclist's perspective would also need to give greater consideration to aesthetic aspects of streets. Purely engineering-based perspectives on street building tend to ignore the importance of aesthetic experience of a place for cyclists. Morse, quoted in Sheller and Urry (2000), describes how "the freeway is not so much a place as a vector" (742). The same street building practices that create the 'non-places' of freeways cannot be used to create roads for non-motorized users. The private automobile acts as a sort of mobile living room, a "carcoon" (Aldred, 2010: 39). Cyclists lack such a shell, and as a result, their experience of the surrounding environment becomes much more direct and important. The aesthetic experience of roads takes on an increasing importance for transportation planning if it hopes to encourage cycling, because form directly affects experience, and whether that experience is dangerous and alienating or pleasant and safe (Taylor, 2003).

There is also evidence that cycling becomes safer as numbers of cyclists increase. A study by Peter Jacobsen (2003) looked at the relationship of collisions between motorists and cyclists or pedes-

³ Separation from traffic also has positive effects on health: a study by Panis et al. (2010) showed that the more cyclists are separated from traffic, the less their exhaust intake will be. In this study, cyclists were found to be more exposed to toxic emissions from car exhaust than drivers. While cycling on roads shared with automotive traffic will always lead to some exposure to exhaust, the study argues that "identifying and implementing separated and dedicated routes for cyclists and motorized traffic will go a long way in decreasing exposure" (2269).

trians with total numbers of cyclists and pedestrians. Common wisdom would find that as numbers of pedestrians and cyclists increase on streets, so will the number of collisions. However, to the contrary, Jacobsen's (2003) study found that the "likelihood that a given person walking or bicycling will be struck by a motorist varies inversely with the amount of walking or bicycling" (205). As Charles Komanoff (2005) puts it, what bicycling needs most is more bicycling. As cyclists become a more predictable, integral part of the street environment, drivers will become more aware of their presence and their rights.

Politics of Mobility

The private automobile has had a profound impact on North American society over the last century; it has reconfigured society, the environment and economy in ways that enable its continued dominance. It is a dominant cultural formation, which "sustains major discourses of what constitutes the good life, what is necessary for an appropriate citizenship of mobility and which provides potent literary and artistic images and symbols" (Urry, 2004: 26). The automobile has become so much a part of everyday life in that it is often difficult to envision or even recognize the need for alternatives. The ordinariness of the automobile in Canadian cities has served to shield it from serious criticism. While the products of an automobile dominated society are often addressed critically in planning literature and practice –widespread criticism of sprawl and road congestion for example— the cultural and conceptual impact of automobility are less frequently addressed, and this is preventing cities from moving beyond their dependence on the private automobile. The ubiquity of the automobile prevents widespread critique of the system of automobility, and not just the symptoms (Rajan, 2006: 116). Automobility, as Furness (2007) argues, has "negated the possibilities for people to metaphorically see past the automobile" (306).

As an element of this system of automobility, urban development in North American cities has become closely linked with the private automobile. It is difficult for planning to critically address automobile dependence because planning processes are so closely linked to its facilitation. Among

the components of automobility described by Urry (2004) are its complex of "technical and social interlinkages" which tie urban planning and design both directly and indirectly to the complex networks which include manufacturing, road building and housing development. In North America, the logic of the automobile has been one of the most important influences on the types of spaces produced, to the point that planning for the private automobile has become a self-perpetuating system. Western societies, are, for the most part, "societies of automobility" (Sheller and Urry, 2000: 738).

Over the last century, the rise of a system of increasingly technical transportation planning with claims to scientific objectivity has masked the highly political nature of the construction and regulation of streets. Mobility, and the use of streets is, and always has been, highly political —mobility and access are unevenly distributed goods masked by the ubiquity of the private automobile. The use and production of space is inherently political, reflecting dominant ideologies. Outlining how space is 'produced,' Lefebvre (1991) argues that every society produces spatial practices that reflect the particular logic of that society, that "secretes that society's space" (38). Lefebvre argues that space has become a too commonly used term, with little critical understanding of its meaning. Theories have shifted from philosophical understanding of space (typically characterized by a treatment of space as a product of consciousness) to a mathematical, abstracted, 'objective' understanding of space. As a result, space has become commonly understood as a 'mental thing,' as a text to be read, where "the mental realm comes to envelop the social and physical ones" (Lefebvre, 1991: 5). While often not recognized, ideology has a fundamental influence on the character of the spaces a society produces. By taking the concept of space for granted, we mask ideological tendencies, and express, "in an admirably unconscious manner, those dominant ideas which are perforce the ideas of the dominant class" (Lefebvre, 1991: 6). This 'objective,' abstracted view of space is central to planning practice historically (Sandercock, 1998: 4), and while this stance is shifting gradually in many areas of planning practice to processes that acknowledge the inherently political nature of planning, transportation planning processes have been reluctant to shed this claim to scientific objectivity.

In contemporary societies, technical rationalities and growth-oriented ideologies dominate urban development, and this is clearly reflected in transportation planning. Planning streets has long been the domain of traffic engineering, with its focus on traffic flow and efficiency. As Brown (2006) argues, the scientific approach to transportation planning took decision making out of the hands of the political process and put those decisions in the hands of trained, apolitical experts. However, these experts did not rely on neutral facts, but instead "traffic data were these men's [sic] means of political expression" (Brown, 2006: 4). The basic assumption or object of their science was to improve traffic speed and reduce congestion, and the way to do this was to limit access by other users. Automobility has the tendency to reduce complexity, thereby excluding many of the heterogenous users and uses of urban space. Planning participates in this exclusion through its desire to control the inherently complex and contested space of the street through simplification.

Blomley (2007) looks at the concept of traffic logic, which has come to guide the regulation of urban streets. Traffic logic emphasizes flow and treats both street users and objects as one type of unit. It has become pervasive and commonsensical, to the point that its political and ethical dimensions are hidden. As Kenneth Schnieder (quoted in Horvath, 1974) stated, "the scale and form of the city expand to serve the city's predominant citizens" (173). The scientific approach that has come to dominate transportation planning reduces these competing rationalities, focusing primarily on the needs of the automobile, while also following what is often the path of least political resistance by representing the needs of those who benefit most from automobility "instead of accepting with the complexity and imperfect solutions inherent in street design for heterogenous traffic, it is simpler to design for the private automobile" (Patton, 2007: 394). This process transformed transportation planning from a "broad, multidisciplinary exercise conducted by a diverse group of architects, engineers, and planners concerned with the social, economic, aesthetic, and transportation needs of city residents into a narrow technical exercise conducted by specially trained engineers and planners who were concerned largely with facilitating safe, high-speed motor vehicle travel" (Brown,

2006: 4). De Vasconcellos (2004) notes an implicit assumption in urban development that "the analysis of the use of streets has to be the exclusive domain of traffic engineers and their technical procedures" (3). The science of transportation engineering and planning relies on an underlying set of assumptions which conceptualize the street as flows and obstructions to flow, in which the needs of pedestrians and cyclists are only accounted for with the provision that they do not impede this flow.

From a historical perspective, the development of the 'motor age street' is not the product of purely rational decision-making on the part of planners and engineers. Norton (2007) looks at how the street shifted from a pedestrian dominated space to its current form. Norton (2007) looks at how cultural perceptions of the street and pedestrians were actively changed, through public campaigns, the press, and the law. Norton (2007) suggests that "before the city street could be physically reconstructed to accommodate motor vehicles, it had first to be socially reconstructed as a motor thoroughfare" (333). From a sociocultural standpoint, as well as from planning, the private automobile has become so entwined in urban development and everyday life that it is often difficult envision or even recognize the need for alternatives. Automobility, as Furness (2007) argues, has "negated the possibilities for people to metaphorically see past the automobile" (306). As the street has come to be dominated by the private automobile, we have come to no longer recognize that the automobile dominated street was a radical transformation in itself. As Norton (2007) contends: "Today we tend not only to regard streets as vehicular thoroughfares, but to project this construction backward in time" (334). Given that the automobile dominance has become naturalized, any challenge to this dominance undoubtedly meets significant resistance.

Quite often, the rise in dominance of the private automobile has been framed as a product of 'a love affair with the automobile.' However, the 'choice' to drive is just as often due to a lack of viable alternatives. Automobility limits other mobilities and "reorganizes how people negotiate the opportunities for, and constraints upon, work, family life, childhood, leisure and pleasure" (Urry, 2004: 26).

Cities planned around the private automobile severely limit other forms of mobility. As well, treating the rise of automobility as the natural outcome of accumulated individual choices masks the specific social relationships and ideologies determining the choice to drive. Too often, automobility is framed as the natural outcome of human impulses, as an outcome of 'letting the market decide.' Henderson (2006) cautions against the essentialization of automobility and argues that automobility is the product of a "spatial struggle over how the city should be organized and for whom" (293). Using the example of Atlanta, he suggests that a "racialized, anti-urban, anti-density, anti-transit set of ideologies and values" exist there, and these ideologies and values have had a profound influence in the creation of Atlanta's typically automobile dependent urban form (298). Henderson demonstrates that automobile dependency and its resulting use of space is the product of specific decisions and motivations, and is not the inevitable product of a mythical 'love affair with the automobile.'

Road spaces like freeways have also been de-politicized from a cultural and phenomenological point of view. Marc Augé (1995) refers to spaces such as freeways as "non-places." They are stripped of the stimuli and meaning found in typical places. They "cannot be defined as relational, or historical, or concerned with identity," as is a requirement of place according to Augé (quoted in Dovey, 1999: 50). However, a number of authors argue that spaces of transit, such as highways, should be treated as places. Removing the 'place-ness' of the highway or freeway de-politicizes it, by removing the politics, history, and individual meanings that surround them. As Dolores Hayden (1997) argues: "As a field of wildflowers becomes a shopping mall at the edge of a freeway, that paved-over meadow, restructured as freeway lanes, parking lots, and mall, must still be considered a place, if only to register the importance of loss and explain it has been damaged by careless development" (18). A perceived lack of aesthetic beauty does not turn the highway into a non-place. As Hayden alludes to, by treating an area as a non-place, we risk masking or ignoring the social relations that went into producing that particular space, and thereby reduce our opportunities to improve conditions there. Justin Spinney (2007) also argues against this treatment of the freeway as a non-place, arguing that

the character of a place depends on *how* we are in it. Moving through a street while enclosed in a private automobile creates a different experience and understanding of a place/non-place than cycling or walking through it. Spinney (2007) uses the example of a cyclist who uses an underpass along a highway daily, and to that cyclist, "experienced from the alternative and embodied perspective of the bike rather than fleeting past in a car, this non-place becomes a place of relative interest and sanctuary" (33).

Social spaces dominated by automobility are detrimental to the public sphere in that they fragment social relations, while also reducing the quality of streets as public spaces for gathering and interacting. Automobility significantly reduces interaction between the driver and other individuals, especially those interactions not consciously chosen by the driver. As Freund and Martin (2007) argue, in our current state of 'hyperautomobility,' "cars are increasingly inhabited by lone individuals, often insulated cocoon-fashion from the world around, rather like mobile gated communities" (41). This separation from each other reflects what Don Mitchell (2005) describes as the "SUV model of citizenship," where each citizen is able to radically isolate themselves from others. This is freedom defined in negative form: the freedom from the intrusion of others. Gehl (1987) argues that these accidental interactions are essential to a healthy quality of "life between buildings." Social activities "depend on the presence of others," but do not necessarily require direct interaction with others, only their presence. The "quality, content, and intensity" of this contact is open and may be minimal, but it is "important as background and starting point for other forms of contact" (Gehl, 1987: 15).

In many areas, physical public space is on the decline, and the 'public sphere' is increasingly less spatially specific, with the increase of the use of the internet and other media (Madanipour, 2003: 165). A physically situated, 'spatialized' public sphere is still important for societal health, in part because its participants are less able to enact the type of exclusion described by above by Mitchell (2005). The physical public sphere forces individuals to address and recognize difference, and opens

the potential for chance encounters, while a virtual public sphere makes these encounters optional. In response, Smith and Low (2006) call for a respatialization of politics and a re-politicization of the public: "the lost geography of the public sphere comes with a concurrent loss of politics, however partial. Abstracting from the location of real events and social relations removes an entire dimension of political rationality" (7). Streets form an important part of this spatially located political realm: they are the most common and most plentiful type of public space in most cities. The publicness of streets, however, depends on the equality of their access and use. If we use equality of access as a guideline, many streets are currently far from ideal public spaces. The creation of streets that include all users, including those who are unable or choose not to drive will go a long way in increasing the publicness of those street spaces.

Automobility, DIY Urbanism and the Right to the City

The assumptions of traffic planning and engineering have become increasingly questioned, especially since the "freeway revolts" of the sixties. Given this diversely based consensus on the need to create streets that are less automobile-dominated, we should be seeing rapid changes in street building practices; however, as Hess (2009) notes, "[e]ven most New Urbanist subdivisions are built with fairly standard and wide, even if better connected, streets" (2). While there is a growing recognition of the need to change, there appears to be an unwillingness or inability to reduce the dominance of the automobile in any significant way. Ultimately, "the multifaceted legacies of scientific transportation planning are so integral to the field that it is questionable how much or even whether the profession has been able to transcend them" (Brown, 2006: 28). Through its overwhelming emphasis on technical rationalities and traffic flow above safety, health or aesthetic experience, automobility severely limits the possibility of greater participation in transportation planning.

Transportation planning is highly resistant to outside pressure from shifts in public and professional opinions and approaches. As Lefebvre (1971) states: "[t]raffic circulation is one of the main functions of a society... the town only puts up a feeble resistance to this 'system' and wherever such

resistance occurs it is duly quashed" (100). Healey's (1997) participatory ideal described in Collaborative Planning, in which "Planning processes... work in ways which interrelate technical and experiential knowledge ...[and] involve active collaboration between experts and officials in governance agencies and all those with a claim for attention arising from experience of co-existence in shared places" has been particularly difficult to achieve in transportation planning. Community resistance and efforts towards greater participation in transportation planning decisions are often limited by transportation planning's overwhelming emphasis on technical rationality. The technical nature of transportation planning precludes it from greater community involvement in decision making. Brown (2006) cites "a tendency on the part of many [transportation] practitioners to resist the involvement of nonexpert others (elected officials, interest group representatives, and especially the general public) in the decision-making process" (28). The rationalities of cycling advocates and activists are often based on experiential knowledge. As described earlier, consideration of the particular experience of the cyclist, including the perception of safety, is essential for effective cycling design. However, planning streets from the point of view of the automobile has created a planning process in which technical rationalities dominate. Fotel (2006), looking at the efforts of one community to take some control over decisions about traffic in a Copenhagen neighbourhood, found that such efforts had little effect "because the rationality with which the residents argue lacks political response. The residents speak from an everyday perspective, in which the insecurity, noise, and general deprivation of their neighbourhood are important" whereas the dominant political rationality in the region emphasizes traffic flow and economic growth (742). Similarly, the type of considerations most relevant to cyclists, such as perceived and objective safety are typically secondary to the imperative of traffic flow in the construction of North American streets.

The inertia of transportation planning and engineering departments in the face of supportive evidence and growing desire for more cycling and pedestrian friendly environments can also be explained by the bureaucratic structures of these departments. Paul Hess (2009), examining this issue

in Toronto, found that there was difficulty in establishing new practices in the face of existing practices with proven outcomes. While Toronto has policy in place to create more walkable and bikeable streets, "changing policy is not enough... the ways that routine street-making processes are institutionalized also needs to be examined much more closely" (Hess, 2009: 22). Planning practice is very often slow to adopt change. Lefebvre (1996) describes how planning, as a purportedly 'rational' act, is an absolute ideology that has presented itself as a rational response to the need for organization in urban areas. It proposes to solve social problems by 'rational' means. However, instead of transforming the social systems that have lead to these problems, planners attempt to cure these 'pathologies' using preexisting social realities (Lefebvre, 1996: 99). The planner tends to protect the status quo. This assertion is evident in the way in which planning has generally adopted the idea of sustainability in transportation: the dominance of the private automobile is rarely challenged —instead technical fixes are proposed. The bureaucratic structures that build cities still reinforce dominant political and cultural norms, regardless of the knowledge or principles of individual planners.

A significant aspect of the private automobile's appeal is its ability to provide a degree of freedom not available by other modes. However, what is lost in automobility's emphasis on an individual freedom is the freedom to partake in the production of one's environment. As Harvey (2003) describes the right to the city, it is a freedom of access, but also the right "to make the city different, to shape it more in accord with our heart's desire" (941). As participation in transportation planning and design decisions by cyclists is typically minimal, it is essential to look outside of the standard, municipally-based public engagement policies to examine how citizens work to shape their cities. In this regard, the concept of the "right to the city," introduced by Lefebvre (1968), is useful for looking at participation. The 'right to the city' is a more expansive conception of "participation" than typically found in planning practice and literature. It encompasses both formal and informal, or insurgent, strategies and practices.

The right to the city and the right to difference should not be limited to existing norms and structures, but should incorporate the right to change those structures. As Lefebvre (1996) writes, "the right to the city cannot be conceived of as a simple visiting right or as a return to traditional cities" but instead as a right to urban life which integrates the city with urban society, which incorporates the interests of its inhabitants (xx). The right to the city is the right to challenge, and to desire and propose alternatives to existing urban realities; it is the right to not simply work within existing systems. Holston (1998) describes a form of "insurgent citizenship" which closely reflects Lefebvre's right to the city: "These insurgent forms are found both in organized grassroots mobilizations and in everyday practices that, in different ways, empower, parody, derail, or subvert state agendas. They are found, in other words, in struggles over what it means to be a member of the modern state-which is why I refer to them with the term citizenship" (47). Insurgent forms of citizenship act on the right to envision alternative urban realities. As Lefebvre (1996) argues, the right to the city should incorporate a right to envision new realities as "a political programme of urban reform not defined by the framework and the possibilities of prevailing society or subjugated to a 'realism'" (155). In a similar fashion, Holston (1998) proposes a dualism between insurgent citizenship and state building. If both are allowed to exist, the tension between the two can be productive and progressive.

Marcuse (2009) considers Lefebvre's (1968) definition as "more provocative than careful" and generally applied to working classes (189). The 'right to the city' requires us to address some important considerations: whose right, what right, and what city (Marcuse, 2009)? Marcuse's discussion views the right to the city as a demand from those who are directly oppressed or excluded in material and cultural terms. Lefebvre's development of the concept centres around class and material politics. However, in mobility politics, economic and cultural class are of less direct importance —although still an important factor (see Furness, 2010; Henderson, 2006). The 'oppressed' in the mobility politics, and my case studies, may come from a variety of class, cultural, and political back-

grounds, but they share one form of exclusion. On all but a few roads in North American cities, cyclists (and pedestrians) are tolerated at best, and often purposely excluded. The private automobile clearly dominates street space. So, in the context of mobility politics and the question of "whose right," we are concerned with the rights of those who are typically marginalized: cyclists, pedestrians, and transit users. In the context of automobile-dominated transportation planning, it is essential to look at how marginalized street users act on their 'right to the city.'

DIY (do-it-yourself) approaches to cities interpret this 'right to the city' very literally. DIY urbanism, also called 'guerrilla urbanism,' or tactical urbanism, involves groups or individuals acting to shape the city to their own desire. This approach to the city is in direct contrast with the highly controlled, rationalized spaces of traffic, and actions are often directed at "loosening" tight, regulated street spaces. The San Francisco group REbar are credited with starting "parking day" in which individuals rent parking spaces and use them as public spaces, putting out lawn chairs, mini-parks and any number of other uses. Merker (2010), a member of REbar, explains: "We saw the street as a territory inscribed by a greater number of interests than the landscape has room to accommodate, only by undervaluing some, can others thrive" (49). Merker describes such actions as "finding the cracks" which might enable larger change, projecting a new set of values onto the highly scripted space of the street.

DIY approaches are most often small scale, local actions, but the intention is most often to 'repair' or improve the city in some way. In a broader cultural sense, DIY urbanism also attempts to provoke a shift from the citizen as passive consumer to a producer of space. Zardini (2008) describes the role of urban 'interventions' in creating better cities: "what is needed is a shift from the passivity in which we comply with what is offered up every day, to an active posture, not so much of resistance, but of a quest. If we observe the contemporary urban world attentively, we see new forms emerge... outside the rules and regulations that inform our current urban system" (15). This view reflects Illich's (1973) call for a revival of what he terms "conviviality," which is used to "designated actions are passive to the conviviality," which is used to "designated actions are passive to the conviviality," which is used to "designated actions are passive to the conviviality," which is used to "designated actions are passive to the conviviality," which is used to "designated actions are passive to the conviviality," which is used to "designated actions are passive to the convergence of the convergenc

nate the opposite of industrial productivity" (11). Conviviality is an active participation in the production of one's environment, something Illich views as a basic human need which cannot be satisfied by industrial productivity.

DIY urbanism highlights the political nature of public spaces such as streets. Public spaces are, as Hou (2010) argues, "never complete and always contested" (7). Beyond the specific outcomes, whether it be a community garden or a guerrilla bike lane, the process of DIY urbanist actions can provide a valuable site for discussion, creating understanding and developing ideas about how public spaces should be used. In her introduction to Everyday Urbanism, Crawford (2008) argues that the play of difference is essential to understanding everyday spaces, and "[t]o locate these differences is to map the social geography of the city... [after all], [t]he city of the pedestrian does not resemble that of the automobile owner" (8). DIY urbanism adds some intentionality to everyday interventions, and further highlights these differences.

While DIY urbanism often poses a challenge to conventional planning practices, it is not necessarily a threat to planning. By paying attention to such actions, planners might engage in the productive tension between insurgent citizenship and state building described by Holston (1998). Areas of less strict control open possibilities for greater engagement. Franck and Stevens (2007) identify these areas of minimal control as 'loose space' which is filled with possibilities, fulfilled by the people who inhabit them. This type of participation adds vibrancy to cities, as excessive control cannot produce vibrant public space (Kirshenblatt-Gimblett, 2008). Hou (2010), focusing on the practices associated with insurgent planning, argues that "precisely because these acts do not require overburdening investment or infrastructure, they enable individuals and often small groups to effect changes... releas[ing] possibilities for new interactions, functions and meanings" (15).

Cycling Advocacy and Cycling Countercultures

In part because of its symbolic value, the bicycle has frequently been adopted by a number of social and countercultural movements, and there is a small, but growing body of literature on the subject.

There are movements whose aim is encouraging cycling in itself, but also others who have adopted the bicycle as a symbol for a larger struggle. Rosen (2002) argues that there is a cycling counterculture which is distinct from 'mainstream cycling.' This cycling counterculture modifies and tinkers with cycling technologies, "increasingly... challenging not only the cycling establishment but also the wider car culture, by demonstrating the green credentials and congestion-busting capabilities of cycling —highlighting, for example, the problems of car commuting by holding 'critical mass' bicycle rides through congested city centers" (Rosen, 2002: 2). Cycling 'counterculture' is held in contrast to consumer-oriented cycling culture, which by contrast is held to be complicit in car-oriented culture. The distinction between countercultural cycling and mainstream cycling is not as clear as Rosen suggests, however. Rosen's (2002) examination of cycling countercultures was written in a different context than the present study. At present in North American cities, the distinction between countercultural cycling and mainstream is difficult to assess. By choosing to cycle in the urban environment, both the mainstream spandex-wearing, \$2000 road bike rider and the countercultural crusty punk riding a \$50 recycled bike, (and everyone in between) are acting in opposition to dominant mobility norms. Cycling, in a sense, is a subversive, countercultural act regardless of the cyclist's intentions. As Furness (2010) argues, in North American cities, "[b]icycling is not only a fringe mode of transportation... it is a form of mobility rendered virtually obsolete by the material infrastructure and dominant cultural norms" (Furness, 2010: 4).

This reflects the subversive potential of everyday practices identified by Certeau (1984). This potential is realized when given conditions are subverted "not by rejection or alteration, but by using them to different ends" (xii). By expanding the definition of resistance, everyday practices, such as the choice to cycle on automobile dominated streets, are seen to hold subversive potential. It is 'on the ground' that the city is realized; walking (or cycling) is to the city as speech is to language, and the way that people act or make use of the city can both support and subvert power. In everyday life we can see the potential for change in larger systems. Everyday life is "the site where struggles to

overcome the alienation and contradictions of modern life meet the ideological representations organized and legitimize that life" (Paterson, 2007: 22).

Of course, when everyday practices are viewed as subversive, this introduces questions of intentionality. Rose (2002), argues that we can examine resistance in terms of social practice alone. The problem, however, with focusing on resistance as social practices is then defining what resistance is: if intentionality is not a prerequisite, it is hard to define what counts as intent. Rose (2002) finds that "[w]hile questions of consciousness and intent seem central, they are impossible to discern in the abstract. My conclusion, therefore, is that practices of resistance have no definitive features in and of themselves but are defined through their oppositional relationship to power" (387). In such a "performative style of systems," it is the relationship between a particular practice and power that would define it as resistance. For example, Fotel (2009), looking at how children use street space in a residential neighbourhood, argues that the situated practices of these children demonstrate the political potential of the everyday. Fotel writes that: "Situated everyday experiences are most frequently not articulated as political issues, but they do have the potential to be so" (Fotel, 2009: 1269). Context is what makes a practice subversive. Returning to the 'countercultural' and 'mainstream' cyclists, both are a part of a larger cycling culture, and both are potentially advocates for transforming cardominated mobility culture. As the case studies in the following sections will demonstrate, very few advocates made use of a 'mainstream/countercultural' dichotomy. At present, in the majority of North American cities, nearly all urban cycling is 'countercultural' whether it is a Critical Mass ride or a commute to the office. In this research, whether their means were radical or moderate, policy or community oriented, interviewees tended to view cycling as an ordinary, everyday practice, and wanted to further encourage the normalization of cycling.

The literature describes cycling as having a countercultural history. The adoption of the bicycle by countercultural groups demonstrates "a collective desire for more participatory technologies" (Furness, 2010: 149). The bicycle lends itself easily to autonomous action. The reason the bicycle is

so amenable to countercultural movements is its inherent predisposition "towards appropriation by small-scale, autonomous groups with objectives which aren't part of the dominant transport or leisure cultures" (Rosen, 2002: 2). Authors associated with the situationist movement, such as Debord (2006) and Niewenhuys (1968) have put forward critiques of automobility. Debord (2006) described the private automobile's role in capitalist and consumer-oriented society as being at "the heart of this general propaganda, both as supreme good of an alienated life and as essential product of the capitalist market" (69). Niewenhuys argued that "The traffic code has degraded the individual who proceeds by the only natural means of locomotion to the rank of "pedestrian," and has curtailed his [sic] freedom of movement to such an extent that it now amounts to less than that of a vehicle" (Nieuwenhuis, 1966). The bicycle, as it has been adopted by cycling countercultures, is positioned as a reaction to the domination of the private automobile. For Horton (2006), "[t]his tradition of thinking, in which the car symbolizes an inauthentic and alienated life, informs a contemporary anarchism which celebrates the bicycle as the car's other" (43). This othering of the automobile has likely contributed to the antagonism seen between cyclists and drivers, most notably when automobiles are conflated with their drivers.

Critical Mass is one of the most widespread events of the cycling 'counterculture' described by Blickstein (2010), Furness (2007), Spinney (2009), and others. Critical Mass is a very loosely organized monthly bicycle ride that happens in many North American cities, usually posed as a reaction to auto-dominated streets. The rides have no predetermined route and no formal leadership. While the loose organization of Critical Mass means that its message and purpose varies by group or participant, it is generally understood as pro-bicycle and advocates for a reconsideration of what is seen to be car-dominated public space (Carlsson, 2007). The practice of Critical Mass can be seen as an inversion of existing norms, as a reaction to the existing domination of city streets by automobiles (Blickstein, 2010).

Furness (2007) describes this mode of political action as performative critique, an active evaluation of existing norms and power structures and a demonstration of alternatives. Furness (2007) adopts the term performative critique from Iain Borden's (2004) description of skateboarding's use of walls, benches, railings and other street features as a re-imagining of the purpose and potential of urban landscapes. This re-interpretation and appropriation of city space can be seen as a form of activism or advocacy which moves beyond mere criticism to provide a real glimpse at alternative possibilities. For many participants, Critical Mass is a literal demonstration of what a city outside of the system of 'automobility' might look like. As Furness (2007) describes it, the 'experiment' of Critical Mass "positions bicycling as a form of hermeneutic mobility that is intentionally designed to encourage a re-interpretation, and possible reevaluation, of both the ideological norms that govern car culture and the practice of bicycling itself" (302). As Spinney (2009) argues, "in their everyday practices cyclists re-interpret the use of road and public spaces according to their distinctive embodied experience" (825). While such actions are often temporary and not wholly sustainable alternatives, they "serve important pedagogical, communicative and/or symbolic functions that can be used as a means to an end- not as the ends themselves" (Spinney, 2009: 309).

Interpreted by some as a type of protest or an oppositional practice, the original intent of Critical Mass was not overly antagonistic or political. Chris Carlsson, one of the "parent figures" of the event, explains: "My reason for being a part of this... was that we wanted the experience of filling the street with bikes. We realized that there are a lot of us on bikes already and why don't we come together rather than riding in isolation along the side of the road?" (Carlsson, quoted in Mapes, 2009: 95-96). Carlsson's interpretation of the event is as a shared experience rather than an overtly political statement.

Charles Komanoff (2005) addressed some of the appeal of Critical Mass at a talk given at the "Bicycle Education Leadership Conference" in New York:

What makes Critical Mass so much fun? Flipping off car drivers? No. Blocking traffic? Well... not really. What makes Critical Mass feel so good, even magical, is the chance it offers to ride a bike without being swamped by a sea of cars... the chance to enjoy the astonishing fact of navigating a city under your own power... the chance to transform the motorized craziness of the street into something gentler.

As with Carlsson, Komanoff's (2005) focus seems to be on creating an experience of security for cyclists in what is perceived to be a normally hostile environment.

Perhaps the reason Critical Mass has become a common and contested event in North American cities, and why it has not taken off in, for example, Copenhagen or Amsterdam is that in cities with "mature cycling cultures," there is much less need. As cycling becomes normalized, more radical approaches to advocacy decline.

As an unfamiliar element on most urban streets, the cyclist is frequently viewed as a threat or deviant. While fear of cycling is one of the major barriers to a mature cycling culture in North America, Horton (2007) argues that this fear of cycling also takes the form of fear of the cyclist. In North American mobility cultures, cyclists are typically marginal users of the road. However, when cyclists choose to move in from the margins, as with Critical Mass riders, they "are experienced as threatening and unsettling, and are demonized —most visibly and powerfully within the mass media" (Horton, 2007:145). There is an inherent tension between the efforts of cyclists to present cycling as a normal practice in a mobility culture in which cyclists are marginalized. To become normal part of our mobility culture, cyclists often must challenge existing mobility norms. While comparatively radical practices such as Critical Mass may create an image of the "deviant cyclist," they may also be working to normalize average cyclists. According to this argument, Critical Mass is a "radical flank" which makes other cycling groups appear more moderate in comparison, increasing their cultural and political legitimacy (Furness, 2007: 311).

In contrast to the view of the cyclist as deviant, there is also a popular image of the cyclist as "elite snob" (Doig, 2012). Some authors caution against the potential for cycling to be constructed as an exclusive or elitist practice. Daley and Rissel (2011) argue that perceptions of cycling play an important role in encouraging (or discouraging) cycling. As a currently marginal form of transportation, "riding bikes needs to be viewed and promoted as a mainstream activity that can be undertaken by almost anyone" (Daley and Rissel, 2011: 216). As well, cycling, as a 'green,' environmentally responsible and health-promoting practice opens up opportunities for distinction and elitism. Aldred (2010), discussing the idea of "cycling citizenship," notes that the practice of cycling "could be seen as a means of displaying one's identity as a healthy, low-carbon subject. This could enact exclusions based on class, gender, and physical ability" (36). Cupples and Ridley (2008) also find that cycling advocacy can often take the form of a type of fundamentalism, which "[is] at odds with promoting social inclusion and might simultaneously fail to apprehend the heterogeneity of environmental responsibility" (255). This type of 'cycling fundamentalism,' which risks replicating the type of exclusion enacted through automobility on non-cyclists should certainly be avoided.

In contrast to the exclusionary 'deviant' or 'elite snob' views of cyclists are those who want to create a more inclusive cycling culture. Respondents to McCarthy's (2011) Cambridge study "were eager to let [her] know that they do not race through the streets, weaving between traffic and wearing brightly coloured lycra. They pride themselves, rather, on being 'normal' in that they tend to travel in their day clothes and they ride on 'beater' bikes' (10). What most cyclists want, and need, is more cyclists to legitimize their use of streets and work towards mobility culture which recognizes, respects and encourages their presence. Like Rosen (2002), Horton (2006) argues that the bicycle has been adopted through recent history by many oppositional social movements. Through the use of the bicycle, environmentalists demonstrate an articulation of an alternative society. However, Horton (2006) argues that environmentalist cycling advocates, instead of emphasizing their environmental distinction, seek to undermine the distinctiveness of their practice by encouraging others to

cycle. Advocates do not seek to exclude those who are unable or disinclined to cycle, but rather want to make cycling a more inclusive transportation choice.

CASE STUDIES: CYCLING ADVOCACY IN CALGARY AND TORONTO

Municipal Plans and Strategies

A pair of bike plans in Toronto and Calgary have played significant roles as rallying points for cyclists in each city. Toronto's 2001 comprehensive bike plan 'shifting gears' (Toronto, 2001) was the product of a process initiated in 1996 after a coroner's report on cycling deaths. Calgary released its most recent cycling strategy in 2011. Both of these plans demonstrated a significant shift, in principle, away from treating cycling as a recreational activity to a making it a viable transportation option. The following section examines the role these plans have played in encouraging cycling in each city, and their reception by the cycling community.

Calgary: A sprawling, automobile dependent, 'radiant city'?

Calgary has earned a reputation as an automobile dependent, sprawling city. Much of the city is quintessential suburbia, with cookie cutter houses, cul-de-sacs and big-box shopping. It provided the model suburbia for the 2006 mockumentary on contemporary suburbs, Radiant City. A recent magazine article describes how the city's "second industry after fossil fuels is suburban sprawl" (Gilles, 2010). The groundwork for Calgary was laid when automobile optimism was at its peak, and it shows in the city's form. City Alderman⁴ Brian Pincott (2012) did not hesitate to describe the city in this way:

the majority of our city is designed for cars, the majority of our city only functions for cars. It doesn't function well for transit, it doesn't function well for walking and it doesn't function well for cycling. That is the city that we're going to have for the next 30-40 years. Nobody is going to go in and bulldoze one of those suburbs that we've built in the last 20 years to create a more cycling and pedestrian and transit friendly environment. That's one of our challenges, as we start trying to say hey, we're going to put transit and cycling and walking at the top of the list.

⁴ The city of Calgary currently uses the term aldermen for elected officials in municipal government, although multiple interviewees noted that the city is shifting to the less gendered term 'councillor' before the next election. While acknowledging that a more gender-neutral term would be preferable, in this paper I will use the term alderman because this is still the official term used by the City of Calgary and most interviewees.

Historically, Calgary's growth, and, as a result, its transportation network, has been dominated by developers almost exclusively interested in building large subdivisions. This developer-dominated planning system is something a growing number of citizens are hoping to change. Cheri Macaulay (2012), describing Calgary's recent shift in its approach to planning, says Civic Camp was formed in reaction to a developer-driven planning process. The group advocated for new approaches to growth in the unstable, boom-bust city to be included in Calgary's current long-term planning document, PlanIt Calgary. In the past, city staff and aldermen have often given in to developer demands for continued suburban-style development. Many viewed PlanIt as a significant turning point in Calgary's development (Macaulay, 2012).

Partially as a result of this suburban style of growth, the perception of cycling as a recreational activity is well-engrained in Calgary. The recreational mindset has delayed progress for commuter cyclists. Jeff Gruttz (2012) from Bike Calgary, a local advocacy group and website, described how Calgary has built a great network of off-road pathways, which links locations across the city. This network has led to an assumption by many Calgarians that what they have is good enough —most suburban communities have access to this well connected, popular network of pathways— why would they need more? The network is well used, and popular for leisure, but impractical for commuting cyclists. Brian Pincott (2012), a city alderman and cyclist, describes having to go eight kilometers out of his way on a daily commute just to get to a pathway:

If you do the bike paths, that's nuts! That is an example of how the difference between a recreational bike system which we have with our pathways, and biking as a transportation choice. That's the challenge with some of the suburban neighbourhoods that are just not bike friendly, they're all about driving a car, because if you drive two kilometers to get around a huge loop to get to your house, in a car it doesn't really matter. If you're walking or on a bike, yeah it does matter.

This misunderstanding of transportation cycling is slowly shifting, but the process is gradual. Nicole Jensen (2012), a transportation planner in bicycle and pedestrian policy and projects for the City of Calgary, says the pathway system was planned for recreation and not for "efficiency.... It's always

been an integrated system with the on street and the off street facilities, but now we need to provide more dedicated space for the on-street facilities."

Notably, the City of Calgary approved its first bike network plan in principle in 1972. The plan included a 265 km network of on-street bike lanes, but was never completed. Instead it was modified to become the city's current network of on-street signed routes and recreational pathways. Ben Gadd (2011) and a group of commuter cyclists started the Brian Chaplin Committee following the death of a friend who was hit by a car while cycling in 1977. The Committee created a commuter bike plan of their own and presented it to City Council. The Committee argued that commuter cycling was at a critical point at that time, and that the City should take the opportunity and create a network for commuter cyclists. The City largely ignored these recommendations, instead continuing in their treatment of cycling as a recreational activity.

Subsequent bike plans did not demonstrate any significant shift in the treatment of cycling. Prior to the 2011 cycling strategy, the 2001 Calgary bike plan was developed "in a vacuum of understanding" (Pincott, quoted in CJSW: 2012) and did not result in much progress for cycling. The recreational mindset persists among council members. Brian Pincott (2012) feels that there is still a lack of understanding about cycling among many members of council, but they are gradually becoming more comfortable with the idea of commuter cycling. The current strategy passed without much difficulty in council, but there were initial challenges from a lack of understanding about what the strategy was about. This approval was a result of the fact that many aldermen

...[d]on't use it as a means of transportation. I think for a lot of people you talk to about cycling in Calgary and cycling infrastructure, they say, we've got a great pathway system, I go for a bike ride on Sundays and everything is great. Making the leap from the Sunday bike ride on the pathway system to cycling as a transportation choice is a big leap, and most people are not interested in making that leap, or most people certainly haven't done that (Pincott, 2012).

⁵ On-street signed routes are suggested routes for cycling. Infrastructure consists of signage. These routes tend to boost bike infrastructure kilometers on paper, but do not change on-street conditions for cyclists.

The 2011 Calgary Cycling Strategy marked a significant shift in how the City approached cycling. The impetus for the 2011 cycling strategy came after a motion by an alderman on behalf of a local cycling activist to create a pair of bike lanes in Calgary's downtown core. The motion was lost in council, and even some normally cycling-supportive aldermen voted against it. Brian Pincott was one of the aldermen who voted against the lanes, because they would have been a one time project when the City was lacking an overall strategy for cycling. So, in response to the failed motion for downtown bike lanes, a group of aldermen requested that city staff develop a cycling strategy for the City.

While the document does not lay out any specific cycling infrastructure, Nicole Jensen (2012) argued that it was intended as an "action plan." The strategy was built on a multiple stage consultation process. The City used online and telephone surveys to gauge public opinion on cycling. As Jensen (2012) explains, "we've always asked cyclists what they wanted, but they're already cycling. With 0.8% cycling city wide, and 2% in the centre city, with those kinds of numbers you're getting a very small percentage of Calgarians, right? And they're already doing it." The survey tried to look at potential cyclists, and what it would take to get them to bike. A major focus of the strategy is the 'interested but concerned' cyclist —those who would cycle if they felt safer on the street. In addition to this strategy, a committee of 15, which included representatives from city cycling groups was formed. Staff found that priorities across all of the inputs were resulting in a consistent message: on-street concerns, primarily safety, were the top priority. These priorities were reflected across the active commuter cyclists on the committee, as well as the recreational or non-cyclists in telephone and online surveys (Jensen, 2012).

A key victory for the cycling community in Calgary was ensuring that funding for the 2011 cycling strategy was allocated. Jeff Gruttz (2012) says that at this point, "I think folks realize that there

⁶ One of the first actions identified in the strategy is the need to develop an updated pathway and bikeway plan.

are policies coming out of our ears, and [that] is not what is needed any more. It is time to walk the talk and begin to allocate funds and actually begin to have concrete facilities and programs...but you need money to really make things happen, and a clear mandate." Initially, the plan, approved in July 2011, was not funded through Calgary's municipal budget. Many were concerned that it would remain unfunded, resulting in another unfulfilled bike plan, adopted in principle, but never implemented. A motion later that year by Aldermen Pincott and Farrel resulted in having the strategy almost fully funded (Pincott, 2012). Funding for cycling, which was almost non-existent in the past, is becoming a part of the city's budget. According to Pincott (2012), "It never actually appeared until four years ago in our budget... and in that time we've actually gone and developed, since then in three and a half years, we've developed a cycling strategy, we've now funded it to the tune of 30 million dollars..." In principle, the strategy represents an important shift towards less automobile-dominated transportation planning. Calgary's cycling community is cautiously optimistic about the 2011 strategy. It is too early to tell what the eventual outcome of the strategy will be, but the allocation of funding and a bike-friendly administration give reason for hope for cyclists.

Toronto: A Bike Boom Despite the City

In Toronto, as in Calgary, there was a brief resurgence in cycling's popularity during the seventies (Toronto: 2001). Increased ridership and safety concerns lead to a 1972 bike plan that resulted in the installation of 84 km of cycle paths, most of which were off-road facilities (Hill, 2010). In 1975, the Toronto cycling committee was formed. The committee consisted of "citizen activists, City Councillors and many volunteers who worked closely with staff to improve cycling conditions" in the former City (Toronto, 2011a). Progress on cycling infrastructure in the intermittent years was slow, and cycling was not a significant issue for council until a series of events in the late nineties brought it back on Toronto City Hall's agenda. In 1996, two prominent cyclist deaths brought attention to cycling safety. That year, a coroner's report on cycling fatalities in Toronto over the prior 11 years was commissioned, and released in 1998. One of the report's recommendations was the creation of a

"comprehensive network of on-street bicycle lanes and routes and off-street trails to enhance bicycle safety" (Lucas, 1998). The report noted that while Toronto had a well-developed system of multiuse, off road trails, there was a need to increase on-street infrastructure.

The 1998 Toronto Coroner's Report provided the impetus for a master cycling plan for the City of Toronto. Prior to the 1998 report, in a document from 1996, then-Councillor Jack Layton called for the installation of 1000 km of bike lanes to increase cyclist safety (cited in Reis: 2011). Over the next 5 years, City staff, in collaboration with the Toronto Cycling Committee and through public consultation processes developed the 2001 official city bike plan "Shifting Gears." The plan was ambitious, proposing a 1000 km network of bike routes, which included 495 km of on-street bike lanes.

While the 2001 plan was adopted in principle, there was insufficient political will to implement it. The strongest criticism of Toronto's plan in this research arose around the fact that it was never implemented. The goal of the plan was to have 495 km of on-street bike lanes by 2011. As of July, 2012, the city had built a total of 112.9 km of bike lanes. This lack of progress on implementation has contributed to an attitude that is common among advocates in the city, that "that approving doesn't mean shit, because ten years ago, people were pointing at Toronto for being the most progressive cycling city because they had just approved 1000 km of bikeways... since year one it had been delayed, either by a lack of funding or political will, or a bit of both. Or a lot of both..." (Garcia, 2012). This sentiment was echoed in every interview on the plan: the City had created a good plan, but there was little hope for its implementation. Funding is allocated on a year by year basis, and implementation is subject to volatile political support. A number of factors contributed to this lack of progress: some point to a lack of political will, or deliberate political interference, and others to a lack of funding. In reality, Nancy Smith Lea (2012) argues, this "mystifying" lack of progress can't be blamed on one factor specifically, but was probably due to some complex interaction among these.

While Toronto had neglected its 2001 bike plan from the beginning, under various other administrations, the election of Rob Ford in 2010 marked a new era for many cyclists. The new mayor introduced what many felt was a heightened level of antagonism towards cyclists (Garcia, 2012; Rosemarin, 2012). In his first year, the Ford's office advised against reinstating a list of citizen advisory committees, including the cycling committee. A 2011 motion proposed re-establishing many of these committees, but the matter was deferred to the mayor's office. According to Toronto Councillor Mike Layton (2012), "everyone sort of knows that's sort of code word for you're never going to see this thing again." Although Layton (2012) does bring it up occasionally "for fun," he feels it is unlikely the current administration will re-form the committee officially. The rationale for not reforming the cycling committee was based on its cost. It was also argued that the cycling committee had already contributed to developing the 2001 bike plan, their original purpose, so they were no longer necessary (Layton, 2012). However, Mike Layton (2012) argues that the committee still plays an important role in the city, identifying the policy measures that impact cycling, and representing the interests of cyclists for the city.

With a lack of funding and official recognition of the cycling committee under the Ford administration, Layton reformed the group unofficially. Under his father's advice he decided to run the committee out of his office. This committee uses the same terms of reference as the original. There were suggestions that Cycle Toronto could (or should) take the role of the committee since it was disbanded (Toronto Cranks, 2011). When asked about this possibility, Councillor Layton suggested that the committee still plays an important role because it is able to bring cyclists into Toronto's City Hall. While Cycle Toronto plays a senior role on the committee, the committee needs to represent the city's wide range cycling groups and interests.

Also in 2011, Toronto City Council approved a staff report which outlines 'the Mayor's Bike Plan.' The emphasis in the Mayor's Bike Plan was on off-road infrastructure like trails and pathways, recommending the creation of 100 km of new off-road trails. The report takes a more explicitly

conservative approach to cycling infrastructure: bike lanes are to be installed "where the community supports them and where they do not impede traffic flow" (Toronto, 2011a). The 'Mayor's Bike Plan' exemplifies a reactionary shift back towards automobile-oriented transportation planning, in which traffic flow (of private automobiles) takes precedence over other road users. As Nancy Smith Lea (2012) of the Toronto Centre for Active Transportation describes the state of cycling for this administration: "there's been a recent emphasis on off street infrastructure and I'm sure the bike paths will be great. But it's a bit discouraging right now that the only on-street infrastructure that's being built is actually where there's already on-street bike lanes." The report recommended the removal of 3 bike lanes on Pharmacy, Birchmount and Jarvis Streets. Following the implementation of 'the Mayor's Bike Plan,' in 2012 there will be a net loss of on-street cycling infrastructure in Toronto. The report also ordered further deferral of the environmental assessment for a Bloor-Danforth bike lane, a major East-West corridor in the city.

While Toronto is seen to be falling behind other North American cities in terms of total cycling infrastructure, there are some positive developments, such as the installation of physically separated bike lanes in the city's downtown. Andrea Garcia, former director of advocacy for Cycle Toronto, argues that Toronto is moving "two steps backward and a quarter step forward." The 2011 'Mayor's Bike Plan' initiated the process of establishing separated bike lanes in downtown Toronto, something the City had not considered seriously in the past. As Andrea Garcia (2012) goes on to say,

...as little as 2 or 3 years ago, nobody was talking about separated bike lanes, whatsoever. I think the fact that it's even being talked about is really great, and I think the fact that they're testing the water with the one on Sherbourne, and Richmond/Adelaide is getting its study done, which is long overdue, it's been in the bike plan forever... but it's just really hard to quantify how much good can the city do to overshadow the bad stuff, which is a laundry list.

In 2012, following a year in which four cyclists were killed in collisions with cars, and many more injured, the Province of Ontario's Chief Coroner released an update on cycling deaths and injuries

in the province. In this report, recommendations for improved cycling infrastructure featured more prominently than in the 1998 coroner's report. The report recommended that:

A "complete streets" approach should be adopted to guide the redevelopment of existing communities and the creation of new communities throughout Ontario. Such an approach would require that any (re-)development give consideration to enhancing safety for all road users, and should include:

• Creation of cycling networks (incorporating strategies such as connected cycling lanes, separated bike lanes, bike paths and other models appropriate to the community) (Ontario, 2012).

At this point it is too early to tell if the 2012 Ontario Coroner's report will have the same impact as the 1998 Toronto report. The Ford administration has repeatedly opposed any efforts at curbing automobility. Another 2012 report, released by Toronto's chief medical officer of health, suggested that speed limits in the city be reduced to 30 km in residential areas and 40 km/h on arterials (Toronto Public Health: 2012). Reaction to this recommendation was indicative of the current administration's approach to streets. With no consideration of their merits, the report's recommendations were dismissed outright by the mayor and many of his supporters on council (Spurr, 2012). Cycle Toronto has requested that the Province push Toronto to implement the recommendations contained in the coroner's report (Kolb, 2012b). At this time, there has been no official reaction by the mayor to the coroner's report.

There are many supportive staff and policies in place in Toronto to encourage cycling in the city, although the overall political will to implement change is lacking (Smith Lea, 2012). Toronto's approach to cycling is, as Chloé Rosemarin (2012) from Bike Pirates argued, stuck in the eighties: "Toronto has a complex about being a world class city. ... it does whatever a world class city is doing, just 10, 15, 20 years later. So what that means is we're stuck in 1980. Commuter cycling wasn't really happening in 1980, so we will get there, and we will catch up, we just need to get into the correct century first." As cities around North America vie to take advantage of current interest in cycling, the City of Toronto has languished. That the city has as many cyclists as it does, despite lack of pro-

gress in terms of infrastructure is an encouraging sign for cycling advocacy. These growing numbers of cyclists are evidence that Toronto is ready for a huge rise in transportation cyclists under supportive policy and political leadership.

Politics and Backlash

Cycling has the potential to become a divisive issue in both Calgary and Toronto. Attitudes about the politicization of cycling, the degree to which it was happening, or even whether it was a politicized issue varied across interviewees. In Toronto, there was a widespread perception that cycling was a politicized issue, and that it had always been that way (Davila, 2012; Layton, 2012; Reis, 2012). In Calgary, while most interviewees acknowledged some politicization of cycling, they expressed this perception much less in terms of an antagonistic relationship between drivers and cyclists, but more in terms of practicality and cost. In both cities there was a definite consensus that cycling shouldn't be political, but opinions about why cycling has become politicized and how to depoliticize it varied. While Toronto's Mayor Ford is often blamed for the current levels of hostility surrounding cycling, even before the election of Ford, modest efforts by the City of Toronto towards building complete streets, such as creating a bike lane on Jarvis Street, resulted "a histrionic frenzy being whipped up by some councillors and ratepayer associations" (Micallef, 2009). In Toronto, advocates generally viewed cycling as an issue that is politicized by default. Martino Reis (2012), a longtime cycling advocate and photographer for Toronto's Urban Repair Squad says that "any good transportation has been very political in Toronto from day one. If you're looking at the extension of the Allen expressway to Jane Jacobs. It was very political when they put in the Gardiner, you know, cutting off Parkdale from the lake, all those classic stories." A culture of resistance to automobile-centred planning is well rooted in Toronto. Competing demands for limited road space are bound to lead to conflict, and truly embracing cycling would require a significant change. Toronto Councillor Mike Layton (2012) argues that "depoliticizing" cycling is impossible: "that's like saying should we depoliticize car driving, like traffic is probably the most politicized issue in the city, road tolls or no road tolls,

speed limit or no speed limit... parking, ask any councillor here, and parking is the number one issue they deal with, parking and traffic, and they're very political."

Although Calgary advocates tended not to see the issue of cycling as a politically divisive issue, there did appear to be some concern that it could become politicized. Jessica Mitchell (2012) of the Calgary tour de nuit Society argued that "Alberta, in general, is a very motor vehicle driven province, people like their cars, they like their trucks. So if politicians are all of a sudden against cars and want to make everything bike friendly, rather than car friendly, they may not get voted in again, because the majority of people don't want that." Overall, though, cycling is not yet a divisive issue in Calgary politics. The reason for this is partially because transportation cycling is an only recently popularized concept in the city, in combination with the cautious and generally cooperative approach of most advocates.

Both Toronto and Calgary clearly demonstrated that municipal administrations have significant power to set the tone of public discourse. Among Toronto interviewees, it was widely held that a rise in political tension around cycling could be attributed to the 2010 election of Rob Ford (Davila, 2012; Garcia, 2012; Rosemarin, 2012). Cycling may have always been a political issue in Toronto, but there has been an elevation of this politicization in the last two years under the Ford government. Named the 'Best Cycling City' by Bicycling Magazine in 1995 (Toronto, 1995), Toronto has begun to fall behind other cities in terms of on-street infrastructure. Chloé Rosemarin (2012) of Bike Pirates feels that Toronto is now characterized by "a lot of antagonism, and I think especially when you have a mayor running around saying we have a war on cars, that does not help matters... I think a lot of cities have grown leaps and bounds to where we are:" This feeling of rising antagonism was shared by most Toronto interviewees (Garcia, 2012; Reis, 2012; Rosemarin, 2012). Rising antagonism had the side effect of bringing together cycling groups. As one interviewee commented: "I think, especially at the beginning of [Ford's] term I think I saw a sort of banding together and unity

of the bike organizations that are out there, I think I saw more communication and kind of a sense of a common threat' (Davila, 2012).

A now notorious element of the anti-bike rhetoric in Toronto City Hall is the "war on the car." Ford ran for election on a platform of "ending the war on the car," viewing efforts by the previous administration to encourage active transportation and transit use as attacks on drivers. Ford's first act as mayor of Toronto was to declare that the 'war on the car' was over? (Kalinowski and Rider, 2010). Prior to Ford's election, the 'war' theme arose on a fairly regular basis in the media. In Toronto, much of this media discourse began to arise after the death of Darcy Sheppard, a cyclist who was killed in an altercation with Michael Bryant, a former provincial politician. Media coverage after this event included, for example "Road Wars: Can Cyclists and Motorists Get Along" (Kalinowski, 2009), "Car vs. Cycle: Road War Shifts into Higher Gear" (Baute, 2009), and "Toronto's War on Cars" (Yuen, 2009). More recently, in light of Toronto's current administration, the city has received international news attention for its 'war on the bike' (Soper, 2011).

This type of rhetoric is divisive and damaging: cycling and driving are transportation choices, not identities. In this simplistic vision of street space "cyclists" and "drivers" are treated as bounded, static social and cultural categories. Of course, many drivers are cyclists and vice versa. The tension and sometimes outright aggression shown between cyclists and drivers is a symptom of a mobility culture in a state of flux, not a "war." Many advocates argue there is no 'war' and the phrase is treated as a dirty word. Nancy Smith Lea (2012) of the Toronto Centre for Active Transportation says she has "basically just tried to ignore the whole thing... it drives me crazy actually" and Yvonne Bambrick, former communications director for the Toronto Cyclist's union, has called the phrase 'war on the car' "absolute rubbish" (Adler, 2010).

⁷ While this particular quote was in reference to ending an LRT based transit plan, "Transit City," the sentiment is indicative of Ford's focus on 'driver's rights.'

In Calgary, the same highly conflictual discourse around cycling infrastructure hasn't taken hold. Brian Pincott (2012) says that Calgary's "rhetoric is mostly around the cost. Car drivers [are] saying [that if cyclists] want their infrastructure, they should pay for it, we should tax them or they should all have licences to pay for it. Why should I subsidize it?" While transportation cycling is new to many members of council, "it is not clear whether they're voting against cycling infrastructure because they are anti-bike, or because they vote against anything that costs money and that they don't see a clear benefit for them and their constituents." Whereas in Toronto the most vocal opposition to cycling infrastructure often comes from the mayor's office, in Calgary, some of the most vocal opposition to city cycling projects has come from a cycling group, the Calgary tour de nuit Society. Calgary decided not to fund a bike share program, due to cost, but had no difficulty approving a new cycling strategy. The decision not to fund a bike share program can be attributed in part to a campaign by the Calgary tour de nuit Society, who argued that the City shouldn't be spending money on a bike share program without proper infrastructure to support it (Mitchell, 2012).

When asked if the "war on the car" comes up in Calgary, Nicole Jensen (2012) said, while it definitely comes up, they try to "really focus it back on travel options. It is really easy to get from A to B with your car, now we want to make it really easy to get from A to B by walking, using transit or cycling. Really it's about a comprehensive approach, and I think that's how we always frame it." Calgary, more-so than downtown Toronto, was built for the car. People have become accustomed to this idea, and advocates are cautious about pushing for radical changes: "we know Calgarians are going to drive. You can't possibly live in this city and not drive" notes Cheri Macaulay (2012). In both cities, this approach seems to be gaining widespread support, and seems promising in terms of encouraging a more civil discussion about urban transportation. There will always be those that will oppose what are perceived as threats to their (auto)mobility. However, advocates feel that if they can shift the discourse, they might be able to get cyclists and non-cyclists alike on board.

When the "war" comes up, the general approach of most advocates seems to be to ignore the phrase and reframe the issue as a matter of transportation choices. A Cycle Toronto campaign titled "Drivers for Jarvis" aimed to bridge this perceived cyclist-driver gap by presenting images of drivers who support keeping the Jarvis bike lane in place. For Jared Kolb (2012) of Cycle Toronto, "the strength of that component really is that it identifies people that are drivers primarily, but who care about bike lanes or cyclists or whatever because maybe they, their son is a cyclist, or their partner is a cyclist, they ride on the weekend. It breaks down the car versus bikes barrier." Most reactions to the politicization of cycling and pedestrian issues have reframed the issue as a matter of providing transportation options. The idea of complete streets (or streets for all users) has been promoted heavily by the Toronto Centre for Active Transportation. Groups in Calgary have also been adopting this approach. An open letter to candidates in the 2010 Toronto municipal election posted on completestreets.ca, and signed by a number of leaders in Toronto transportation issues states: "We do not believe that there is a 'war on the car.' The Complete Streets model provides room for everyone including drivers, cyclists, transit riders and pedestrians" (Complete Streets Canada, 2010).

The Toronto Centre for Active Transportation promotes the idea of complete streets in almost all of their work. The concept has become a major focus for the organization, and they are hoping to promote the idea nationally. Even comparatively radical groups like Urban Repair Squad have adopted this approach, generally avoiding the 'war on the car' discourse. Martino (2012) argues that what the group is trying to achieve is not really radical: "I know from the people that I have talked to, that it is not about making the streets just for bikes, or public transit and cars screw off, it's not like that. The idea is basically making half the street [not for cars], otherwise they would take a whole street and put a bike lane on it, and say you know, no cars. I mean, that would be radical. It would be crazy because it would be radical."

The following section will provide two illustrative examples of the political state of cycling in each city. The installation or removal of cycling infrastructure and the related public discussion in

each case demonstrate each city's cycling state of affairs in microcosm. Toronto's Jarvis Street has become the site of a battle between cyclists and the municipality, and Calgary's 10th Street NW has demonstrated the current administration's eagerness to move forward on cycling, and the potential for backlash from drivers as well as cyclists.

Toronto: "Save Jarvis!"

The struggle over the future of the bike lanes on Jarvis Street serves as an excellent example of the current state of cycling politics in Toronto. Jarvis has become a symbol in the struggle between cyclists and the Ford administration. The lanes were installed as part of a 2009 streetscape improvement project in which a fifth reversible lane was removed to make room for bike lanes. Layton (2012) believes that Jarvis Street has been "more about just removing a lane than anything else." A study released by the City of Toronto found that the number of cyclists on Jarvis Street has tripled since the installation of the bike lanes, and peak automobile travel times have increased by a maximum of five minutes (Toronto, 2011b). Advocates also frequently indicated that the decision to remove the Jarvis bike lane was made without any public consultation. Despite this, the City has remained firm in its decision to remove the lanes, something advocates see as the local government acting on an anti-bike ideological basis.

The councillor acting as head of Toronto's Public Works Committee has been a longtime opponent of the Jarvis bike lane. In 2009, this councillor contributed an editorial in the Toronto Star that removing a traffic lane from Jarvis is like fixing a clogged drain with lard instead of drano. He goes on to claim that "The city's undeclared but very active war on cars is really a war on people who, for the most part, lack alternatives" (Minnan-Wong, 2009). However, the intention behind the creation of bike lanes on Jarvis Street was part of a larger attempt to create such alternatives (Layton, 2012). People continue to lack alternatives to the private automobile because the City resists any efforts to implement them. Layton (2012), echoing the opinions of many cycling advocates in Toronto, argues

that the decision to remove Jarvis was a result of councillors acting "not based on fact, and making decisions based on a personal position."

The debate over the Jarvis bike lanes has become a rallying point for Toronto cycling advocacy. Since the decision by the City to remove the Jarvis bike lanes, Cycle Toronto has been engaged in an ongoing campaign to save them. Tactics have included a pair of large group protest rides and the previously mentioned public and media oriented 'Drivers for Jarvis' campaign. Cycle Toronto has also engaged in legal action to protect the lanes, claiming that the removal of the bike lanes is subject to an environmental assessment, and the City did not follow proper process. The City did not act on the legal opinion, so Cycle Toronto went on to request that the Province of Ontario take action.

The Jarvis case demonstrates the instability of a bike planning system not yet ingrained in Toronto's institutional culture and bureaucratic structure. The Jarvis bike lanes, like all bike lanes in Toronto, are installed on a case-by-case basis, and are subject to political will. Bike lanes are treated as an anomaly in a transportation planning system designed for the private automobile. They were installed quickly in a supportive atmosphere under former Mayor David Miller, and the decision to remove them came just as swiftly under Mayor Ford. The bike lanes were installed without proper public consultation, and were removed without consultation. With the removal of the Birchmount and Pharmacy bike lanes, and the decision to remove Jarvis, Toronto has demonstrated how impermanent most cycling infrastructure is at present. If Toronto hopes to promote cycling, bicycle infrastructure will need to become a part of everyday transportation planning decisions.

Calgary: 10th Street Backlash

In the fall of 2011, the Calgary City Transportation Department installed a dedicated bike lane along 10th Street NW, a road connecting residential communities to downtown Calgary. For the City, the 10th Street bike lane was a way to provide a missing link in the pathway and bikeway network and to "test the water." Administration saw an opportunity to try cycling infrastructure in the city during a

resurfacing on the street. The lane was designed as a pilot project that would be monitored over a full year to determine the benefits and impacts of the lanes. The lane had been planned for some time, and was included in Calgary's 2001 plan but never implemented.

Reactions to the 10th Street bike lane were immediate and strong. The Calgary Sun newspaper referred to the lane as "the 10 St. Bicycle boondoggle," (Platt, 2011) and the Calgary Herald, in a more measured tone, blamed the lane for "traffic chaos" (Potkins, 2011). Calgary's Mayor Naheed Nenshi, in reaction to the outrage, defended the bike lanes while criticizing their confusing implementation with little public notice (Nenshi, 2011). This criticism was shared by CivicCamp's Cheri Macaulay (2012) who felt that "there would have been a backlash no matter what, but I think that if we prepare people a little more for it and they know it's coming and they know why... the hardcore people who hate it, they're going to hate it no matter what. But there might be some people in the middle who might not like it but might say, ok, ok, I get that..." The Calgary tour de nuit Society strongly oppose the 10th Street bike lanes, feeling that their poor implementation will result in backlash. As Jessica Mitchell (2012) argues,

We definitely are not about making people's lives harder who want to drive. We think that's a bad way to go because you want people to like cycling, not hate it because it makes their life hard. Calgary tour de nuit Society weren't in agreement with the 10th Street bike lane at all, we didn't really even know that was going to go down, it kind of went down overnight, and not much consultation went into it.

While there has not been significant opposition to giving road space to cyclists in principle so far in Calgary, the backlash around 10th Street may be an indication of things to come if the city is not careful. When asked about backlash, Pincott (2012) says "We haven't done much of that... but we're just beginning to go down that path, because the cycling strategy certainly has identified places where we want to put lanes, we're putting in lanes this summer, it is going to take travel lanes away. And so we're going to start seeing that." As the 10th Street case suggests, the city will likely need to address backlash in the installation of future bike lanes. While there is currently (sometimes cau-

tious) political support for cycling infrastructure in the city, as the current state of cycling in Toronto suggests, municipal support is volatile.

Suburban Support

A perceived urban/suburban divide is often used to fuel antagonism in debates over cycling infrastructure in both Toronto and Calgary. In this dualism, the 'average people' from the suburbs, who have no option but to drive, are pitted against 'downtown elite' cyclists. Neighbourhoods outside of the downtown core are often those that would benefit most from better cycling infrastructure, because of high-speed suburban arterials, and a neglect in terms of cycling infrastructure provision. Many suburban neighbourhoods are places of more concentrated poverty, where access to safe and affordable transportation is lacking —these are some of the neighbourhoods that would benefit most from creating transportation options (Rosemarin, 2012). For example, many of Toronto's inner suburbs are becoming increasingly poverty-concentrated, and often these same suburbs lack access to public transit. Creating safer cycling infrastructure could provide mobility options for those who cannot afford to drive and for whom public transit access is poor.

Mike Layton (2012) has argued that connecting downtown Toronto to the rest of the city for cyclists is essential for the future of cycling in Toronto. Discussing the removal of two suburban bike lanes on Pharmacy and Birchmount Streets, Layton felt that "Taking out the bike lanes that were laying those foundational pieces: it was tough... We're not going to see a ton of that other bike infrastructure get built in the next couple of years, where it was supposed to be a long-term roll-out of getting a certain number of kilometers of bike lanes every year." (quoted in Aalgaard, 2011). While the Ford administration apparently recognizes the problem with automobile dominance — that people are left without mobility options— they ignore viable solutions. Automobility is viewed as inevitable, and they choose to fight traffic congestion by enabling the private automobile at the expense of other options. This attitude has dominated Toronto's administration under Mayor Ford.

⁸ This is discussed in depth in David Hulchanski's (2010) report "The Three Cities Within Toronto."

In both Toronto and Calgary, the potential for suburban cycling was treated with ambivalence by advocates. Most agreed that suburban form was a significant barrier to cycling, but there was nevertheless support for cycling improvements in the suburbs. In Calgary, Brian Pincott (2012), an alderman whose ward extends into Calgary's suburbs, says he receives frequent calls from cyclists all over his ward with suggestions for improvements. Similarly, Richard Zach (2012), a Bike Calgary board member, feels that there is opposition to cycling in the city, but it isn't necessarily confined or even concentrated in the suburbs. According to Zach (2012), "the majority of Calgarians have nothing against cyclists or bike lanes, [but] there's some vocal people who think taking away space from cars is bad. There's some people who think cyclists are all scofflaws that ride on the sidewalk, blow stop signs and red lights, but you get that everywhere." Liam Gordon (2012) of the Good Life DIY bike shop in central Calgary describes how they "even get people coming from really small towns that are stoked on this place. Some people do bring their bikes from the suburbs to fix up here, and ride... I think there's less us versus them, hip urban people versus the suburbs..."

However, not every group felt that suburban support was this strong. Jessica Mitchell (2012) of the Calgary tour de nuit Society says the group doesn't focus much on the suburbs because

It would be difficult to try to convince someone who lives down in [outer suburban community] Cranston to bike to work if they work downtown every day. Maybe they would agree to do it once or twice a week. I know there are some people down there who just love cycling and you know that's what they do. But for the majority of people it would just take too much time or they just can't even fathom that.

While the group recognized the existence of support in suburban communities, they choose to focus their energy on what are seen as more supportive central communities. Similarly, Cycle Toronto described how the organization needs to pick the most "winnable" battles to focus on; they recognize the need for more cycling in the suburbs, but with limited resources, they need to be careful about what they focus on (Garcia, 2012).

The challenges in suburban communities for cycling are often more prominent for politicians than residents of suburban neighbourhoods. Chloé Rosemarin (2012) describes how "when [she] was commuting to Bathurst and Wilson there were cyclists every day up there. As soon as you would call the councillor and say 'there's a giant pothole and the road is closed, what's up with that?' there was no support at all, they were like 'why are you on your bike?' As opposed to [downtown], where you call Adam Vaughan, and you're like 'hey there's a giant pothole' and he's like 'oh yeah we know, we've had like 19 calls today." Andrea Garcia (2012) felt that extensive community consultation in many Toronto suburban communities would delay bike lanes, but at the same time "that doesn't mean that there's not suburban communities that are laying down bike lanes, there's great examples of that throughout the GTA, it is effectively positioned as a wedge issue between different voting groups." This use of cycling as a wedge issue was clearly demonstrated in the 2010 Toronto municipal election, where a Scarborough councillor won on a platform which included removing two bike lanes as a key election promise? (Layton, 2012; Spurr, 2011). In this context, identifying and building on community support for cycling infrastructure should be a key focus of cycling advocacy and supportive planners

Avoiding Backlash

To avoid backlash on bike infrastructure projects, and to support lasting cycling infrastructure, community support is essential. Councillor Layton (2012) felt that building a sense of local ownership over cycling infrastructure projects was very important: "they have to understand why you're doing this. If not, you're just going to end up in a position like we were on Birchmount and Pharmacy, where someone can run on removing a bike lane and win, instead of, creat[ing] that support you need." Cycle Toronto includes public awareness as a key component of their operations to bring people onside and show that cycling infrastructure won't be a bad thing for communities (Kolb,

⁹ Ironically, part of the argument against the lanes was that they didn't connect to anything. The two bike lanes in question, on Pharmacy and Birchmount, were intended as foundational pieces that would eventually become part of a larger network (Layton, quoted in Aalgaard, 2011).

2012). Bike Calgary describes how city staff rely on cooperation with the group: "one feeds on the other. The city staff tell us repeatedly that they can't be alone: there has to be public support out there. They realize that they can't do things without aldermanic support, [and] aldermen don't move unless they see a clear demonstrated need for doing something" (Zach, 2012). While there is a supportive administration for cycling in Calgary, advocacy needs to play the important role of building community support to enable cycling staff to implement plans. However, this public awareness and community support work is meaningless without the political will to implement plans.

Approaches to Advocacy

Formative Moments

Advocates in both cities described key formative moments in their local cycling cultures, in which formerly disparate groups came together to create a more unified voice. In the late nineties, a nascent bike culture was gaining strength in Toronto. Nancy Smith Lea (2012), one of Advocacy for Respect for Cyclists' founding members, who would go on to form the Toronto Centre for Active Transportation, describes a "bike culture spurt happening then, the international courier championships were in Toronto the year before, and Critical Mass was really picking up popularity. There were people doing zines about cycling, it was a kind of cool time in terms of the culture." Advocacy for Respect for Cyclists came together as a loose group with a few common goals: initiating the call for a Toronto coroner's report on cycling fatalities and injuries after the deaths of two cyclists in 1996, and fighting a legal battle for two cyclists arrested in a Critical Mass ride the same year.

Advocacy for Respect for Cyclists is more radical and considerably less organized than newer advocacy groups like Cycle Toronto and the Toronto Centre for Active Transportation, and was described by one interviewee as "the devil to the Toronto Cyclists Union's angel" (Rosemarin, 2012). The group has no formal organization. Instead, according to Smith Lea (2012), "but it was more about having a very non-hierarchical democratic space for cyclists to come together and whoever

had an idea that was something they wanted to work on, they had as much right as anybody else." This openness worked well when the organization had common goals to organize around, such as the coroner's report and the legal battle of the two Critical Mass cyclists. A lack of organization lead to a decline in activity after the group achieved these goals, although members still organize under the Advocacy for Respect for Cyclists name, particularly around cyclist deaths, when they organize "ghost bike" memorials. As an offshoot of this activity, members of Advocacy for Respect for Cyclists also maintain an online map of cyclist deaths across Ontario.

Critical Mass is also seen as having played an important role in forming and supporting cycling communities in Toronto, although the ride's popularity, at least among the groups interviewed in this research, seems to be on the decline. It is being joined by more organized cycling advocacy in both cities. Large scale rides like Critical Mass played, and continue to play an important role in the formation of cycling communities and as a "prefigurative demonstration" (Furness, 2007). The ride is now police escorted —something Chloe Rosemarin saw as taking away its potential for inspiring cyclists: "it's kind of weird having a police escort, and it doesn't encourage people to see cycling as safe when you have an army of cops on bikes directing traffic around it. That seems counterproductive to me." Large scale rides are certainly still a popular tactic, for protest and for celebration, but the playfulness and sense of community around Critical Mass seems to have been diminished by the requirement of a police escort. In Calgary, many cycling activists have begun abandoning Critical Mass rides because they felt it was overly confrontational. The rides still happen "but it's not critical" says Richard Zach (2012). A blog post by Calgary activist Grant Neufeld (2009) argued that "[b]eing abusive toward drivers may be a "release" for the individuals who do it, but it harms the cause. Drivers who are angered by the harassment are not going to be inspired to drive more safely around bikes, they are not going to see cycling as a positive mode of transportation, they are not going to be in-

¹⁰ Ghost bikes are painted white bikes, placed at sites of cyclist deaths. The practice started in St. Louis, Missouri, in 1993 and has spread globally since that time.

clined to ride a bike instead. Rather, they will dig in their heals and become more aggressive in their driving."

In Calgary, much of the current momentum surrounding cycling can be traced back to the Imagine Calgary visioning exercise. Through Imagine Calgary, the City consulted with Calgarians to identify priorities and hopes for the city over the next 100 years. These priorities and hopes informed the Calgary's municipal development plan, as well as the transportation plan, which, in principle, inverted the city's transportation hierarchy, placing pedestrians and cyclists at the highest level of priority (Calgary, 2009). CivicCamp, a grassroots, citizen lead group which promotes and facilitates civic engagement, coalesced around PlanIt Calgary. Cheri Macaulay (2012), a founding member of the group, describes how PlanIt was "a very different vision for how Calgary should move forward on the planning front and on the transportation front." The group was formed out of a frustration that visions for more sustainable options for Calgary were not being heard. Out of this frustration, she says, "we hatched this idea of hosting a civic camp and people came out of the woodwork, it's like we found our people. What we found, which was very heartening, was that there was a huge number of Calgarians out there who also wanted to be heard and had similar values to ours. So it was a real turning point, it was very heartening to have those people come together." There was a latent interest in cycling in Calgary, waiting for an opportunity to coalesce, Macaulay (2012) says:

The interesting tie to cycling is that we started, at the very beginning of civic camp, we had a very basic website and an online discussion board. And any time the topic went to cycling, I used to say it was like when you go up to the aquarium and you throw the fish food in and all the fish froth to the surface, that's what happened every time we discussed cycling. It was the most talked about topic, the one that generated the most interest. So we always knew that thread was there, and then it was a natural thing to step into the advocacy, when the cycling engagement plan, or the cycling strategy came up for review by council.

CivicCamp played a mentoring role for Bike Calgary, the city's largest member-based cycling advocacy group. Bike Calgary was initially a website which was soon joined with a just-formed advocacy group. As Jeff Gruttz (2012) describes: "the original premise of the website was a forum, a means to communicate, and that married really well with John [Alliston]'s interest in getting people to share stories and information about primarily bicycle commuter routes." From early on advocacy was a key focus of Bike Calgary, as was building a community around cycling.

Through the "get stuff done" workshops, CivicCamp brought as many Calgary bike organizations as they could together to talk about the newly released Cycling Strategy. These meetings strengthened Bike Calgary advocacy efforts and pulled together cycling groups from across the city. Cheri Macaulay (2012) describes the experience as being like "watching your kids leave home." Through these workshops with CivicCamp, there has been a noticeable increase in the group's momentum. Richard Zach (2012), a newer member of Bike Calgary, says that

[I]t was the momentum of the people that came to those workshops... which is exactly what CivicCamp wanted to happen, more people got excited about it. When the cycling strategy passed in July, we had beers at the Hop in Brew, and there was one of those 'we should keep the momentum going!' moments.

Both cities demonstrate how essential a thriving cycling culture is to enabling strong cycling advocacy. These communities form the basis for other projects: for example, in Toronto, members of Advocacy for Respect for Cyclists would go on to form Cycle Toronto, Charlie's Freewheels¹¹, and other independent bike shops. Other direct impacts of Advocacy for Respect for Cyclists are difficult to assess, but ultimately, the group's biggest contribution to cycling in Toronto is the "seminal role" it played in fostering contemporary cycling advocacy in the city (Smith Lea, 2012). The roots of cycling advocacy in Toronto are more direct-action oriented than those in Calgary. In Toronto, cycling advocacy formed around the neglect of cyclist safety and resulting deaths whereas in Calgary, the formative context for cycling advocacy was around the release of the 2011 cycling strategy by the City. The 2011 strategy was a positive rallying point for advocates to come together and look at cycling in the city as a whole. "If there hadn't been a cycling strategy," Richard Zach (2012) states, "if it was just sort of a bike lane going in somewhere, it is only the people who live or cycle along

¹¹ Charlie's is a nonprofit bike shop that provides employment and training for young people.

that bike lane that get excited about that, right? I mean the only other thing that could have possibly galvanized the city wide interest is perhaps a sort of a high profile cyclist death." Because Calgary cycling advocates have gathered around a positive development for cycling by their municipal government, relationships between advocates and administration have been, for the most part, collaborative.

Advocacy "Grows Up"

In both Toronto and Calgary, there are now large moderate cycling advocacy organizations. By the mid 2000's, cycling advocacy in Toronto had "grown up a little bit" according to Smith Lea (2012). As in Calgary, cycling advocacy in Toronto is shifting towards an increasing adoption of more moderate approaches. In Toronto, the city's larger advocacy organizations like Cycle Toronto and the Toronto Centre for Active Transportation are adopting more conciliatory approaches, in an attempt to normalize cycling by providing a moderate voice. In 2006 Smith Lea founded the Toronto Coalition for Active Transportation, which would become the Toronto Centre for Active Transportation. The Toronto Centre for Active Transportation's initial focus was on advocacy and "trying to get active transportation on the radar" for the 2006 municipal election (Smith Lea, 2012). Key for this mobilization was creating a more unified voice for active transportation. As Smith Lea (2012) notes:

I noticed when I was in Advocacy for Respect for Cyclists something I was not that comfortable with, that there were these divisions between groups. We all pretty much wanted to go in the same direction, but some in-fighting distracted us from doing the work. One of the things I personally was really interested in seeing happen was these groups coming together with a common platform.

Since that time, the organization has shifted towards more work in research and education. They are "very focused on policy makers and decision makers and trying to get them to really understand the benefits of incorporating active transportation into planning on a regular basis, and not having it be something that's seen as an alternative, that it really should be really part of regular planning" (Smith

Lea, 2012). The Toronto Centre for Active Transportation organizes a yearly Complete Streets conference and works to provide support for active transportation advocates within government.

As part of this more moderate approach to cycling advocacy, groups in both cities have attempted to work in closer collaboration with City councillors and staff. As Andrea Garcia (2012) describes the original aims of Cycle Toronto (formerly the Toronto Cyclists Union or TCU), their purpose was to hold the city accountable for their promises to cyclists. The organization was founded "with the thought in mind that we would be a moderate voice in the cycling discussion, one that would seek bridge building and compromise, to satisfy both sides, to be able to move forward" (Garcia, 2012). Their approach is decidedly more moderate than other, earlier cycling groups like Advocacy for Respect for Cyclists. This approach has introduced limitations to what the organization is able to do, but ultimately their goal is to be as representative of Toronto cyclists as possible by attracting as many members as possible. In 2012, the organization changed their name in order to "ensure we are able to reach as many of our fellow riders, and other street users, as possible. We feel that the future of this organization is much brighter, and the possibilities greater, with a new moniker: Cycle Toronto" (Toronto Cyclists Union, 2012). The organization felt that the 'union' element of their former name was a barrier to more widespread appeal. Cycling is often closely associated with progressive politics and environmentalism: in trying to achieve their goals, these groups appear to be distancing themselves from these associated "politicized" issues to focus purely on cycling.

In Calgary, the relationship between Bike Calgary and the municipality has been mostly cooperative. Jeff Gruttz (2012) says Bike Calgary took this approach "right from the outset, [because] everyone who was involved from the outset realized we can't do this alone, and saw examples from advocacy organizations around the world, and other cities. We need to work together, the cyclists with the bureaucrats and city staff as well as the elected official —in this case, the alderman." Richard Zach (2012) views Bike Calgary's relationship with the city as constructive collaboration:

We would like to be able to suggest things to them, have early input on their plans, let them know when something isn't working, and of course we would like to do that as directly as possible. That's something that we've been pushing for, and so far, I think our relationship with city staff has been very good. We're polite, respectful, we call them up first and say 'hey, there's a problem' before we send out a press release and go on [local news show] Breakfast Television.

The Calgary tour de nuit Society, another Calgary cycling advocacy group, has a much less optimistic view of relationships with City staff. The group is concerned with cycling advocacy, Jessica Mitchell (2012) explains, but "at the same time we are critical of poor decisions that might be made around cycling development in Calgary because there are some things that some planners or developers think are good ideas, but they're not actually cyclists themselves, so they don't really know." Although included in Bike Calgary's advocacy committee, the Calgary tour de nuit Society is often at odds with Bike Calgary's message. They remain a vocal critic of many of the City's cycling decisions, such as installing a bike lane on 10th Street NW (Mitchell, 2012), bringing Mia Birk and Andreas Rohl to the city (Calgary tour de nuit Society, 2012), their choice of bike lane locations downtown (CBC, 2012b), and a proposal for a city-wide bike share program (Mitchell, 2012).

The tour de nuit Society prefers to communicate with aldermen and provincial politicians than city staff. Mitchell (2012) explains how Gary Beaton, the organization's founder, works by making political connections, trying to gain support in government for cycling improvements. This approach is explained by a feeling that cyclists do not factor in most decisions about cycling in the city. Regarding the cycling strategy, Mitchell (2012) argues that consultation on cycling infrastructure was minimal. In terms of the city's engage! policy, the Calgary tour de nuit Society felt that these consultations were at the lowest required level: "...basically they didn't have to consider any information that we gave, they were just there to give us the information that they had already planned, so I'm not sure if the consultation process for cycling infrastructure is the best, or the most effective." Advocates in both cities must maintain tentative relationships with City staff to push for change in a

system where planning for the private automobile is still the default position for transportation planning.

Following the election of Mayor Rob Ford in Toronto, the approach of many advocates and activists in Toronto initially was to find ways to work with the new administration. While the mayor and his political allies had been known to be vocally anti-bike, many advocates felt that the best approach would be a collaborative, rather than oppositional stance. After all, this administration was the first to bring forward the possibility of separated bike lanes in the downtown core. Dave Meslin, looking at the now (in)famous council meeting where then-Councillor Ford compared cycling to 'swimming with the sharks,' notes that Ford also suggested we widen sidewalks and give half to cyclists. Meslin (2011) suggested that "upon closer inspection, Ford's infamous anti-bike speech happens to contain one of the most supportive bike policy proposals ever put forward on the floor of city council." The following spring, the Cycle Toronto worked on a campaign for separated bike lanes in downtown Toronto, in cooperation with city councillor and chair of the Public Works and Infrastructure Committee, Denzil Minnan-Wong. So far, there has been progress on creating separated lanes on Sherborne Street in the downtown core, which have been scheduled to be installed in the summer of 2012. Other possible routes for separated lanes were in their consultation phases as of summer 2012.

However, this same report contained recommendations that a number of bike lanes around Toronto be removed. Since then, relations between the Public Works Chair and Cycle Toronto have begun to sour, following a legal challenge to the City by Cycle Toronto in the Spring of 2012, Minnan-Wong quipped that he won't be renewing his Cycle Toronto membership (Cole, 2012). Looking beyond lobbying efforts, advocates feel that while there are certainly allies for cycling among city staff, planning staff are limited in their ability to act (Davila, 2012; Garcia, 2012; Smith Lea, 2012). Andrea Garcia (2012) argued that "planning staff don't have any power in Toronto... other cities, what the planner says, it is the buck stops there [and] they are going to do it like this.

Toronto's planning is completely, the whole system is all recommendation, suggestion-based, completely...The chief planner reports to a deputy city manager, which kind of shows you how much importance the City puts on the planning department."

Cycling advocates are seen as an asset by the City staff working in active transportation. As Nicole Jensen (2012) notes, "...when we started doing more of the bike infrastructure back in 2006, which was really slow to start, the cycling groups weren't very formed... a few people were often contacting us, but it wasn't cohesive. Now it's cohesive. So I think we've had an evolution." Bike Calgary is also attempting to make connections with aldermen from across the city through its ward representative initiative. Brian Pincott (2012) says "I found out my ward rep was named, actually the very day that they were named. I got in touch with him and we went out and had a beer, and I talked about the things that I'm doing for cycling in my ward and the slings and arrows that I'm suffering for some of it..." While this close association introduces concerns about co-optation for groups like Bike Calgary, they feel that this is the only way City support for cycling can remain stable (Zach, 2012; Gruttz, 2012).

Groups like Bike Calgary, Cycle Toronto and the Toronto Centre for Active Transportation are advocating for significant change in how cities build streets, but at the same time feel that the best way forward is through open, moderate communication. Cycle Toronto has to deal with this contradiction on a regular basis. As Andrea Garcia (2012) notes, Cycle Toronto receives "email and phone calls all the time being accused of either being too radical, or not radical enough." The Toronto Centre for Active Transportation's steering committee also needs to deal with this dilemma: some members feel that the organization should be taking a more radical stance, feeling that "the time of the car is over." In the end though, the organization has acknowledged that "for the foreseeable future, cars are going to be an important part of the mix, and we should figure out how to make it better for everybody" (Smith Lea, 2012).

In Calgary, advocacy generally takes a more moderate approach in part because there is a feeling that radical measures, either by the City or by advocates, will create backlash. Jeff Gruttz (2012) argues that, because of Calgary's politically conservative atmosphere, "In order to be a fast process, there would be too much backlash. It will be a step backwards. As much as we'd like to see it move quickly, we realize that with the political realities in Calgary it just can't." Bike Calgary shares this perspective with the City of Calgary, who is taking a cautious approach with their strategy (Jensen, 2012). Backlash on cycling infrastructure in the early phases of the strategy will make later projects more difficult, but if the City and advocates can build community support in the strategy's early stages, later projects might become easier to implement.

In the spring of 2011, Andreas Rohl, a "bicycle guru," and the Manager of Bicycle Programs for the City of Copenhagen, visited Toronto for the Ontario Bike Summit. Currently working in Vancouver on a new walking and cycling strategy, Rohl's message was that if cities want to encourage cycling, you need to make it normal. Cycling should be an everyday transportation choice, but only by making it the most attractive choice will cities encourage cycling (Paperny, 2012). This attitude was shared by the majority of advocates in Calgary and Toronto.

Alongside their efforts to become more moderate voices for cycling, these advocacy groups are also trying to create a more moderate image of cyclists. Andrea Garcia (2012) felt that normalizing the popular image of the cyclist was key for advocacy: "you have to get people who are not normally associated with the movement to become really vocal." Similarly, Anibal Davila (2012) of Bike Sauce described how "somebody once asked me where I'd like to see bicycle culture in 5 years, or in the future, as kind of the grand goal, and I want to see it erased completely, I want it to be so commonplace, so banal and common-sense that you wouldn't think to call it a subculture." While the "cycling countercultures" described by Rosen (2002), Furness (2007, 2010) and Carlsson (2007) played an important role in creating strong cycling cultures in the past, many activists now seem to be shifting their approach from "anti-car" to "pro-bike" positions. Like the environmentalists discussed by

Horton (2006), these groups are, instead of emphasizing distinction, trying to undermine this distinction by making cycling commonplace.

DIY: The Right to the City and Cycling

There is a strong link between the "do-it-yourself" (DIY) ethos and cycling culture. Cycling is a 'participatory technology' —bikes are open to modifications and require few resources to acquire and maintain. Carlsson (2007) describes how in the new bicycle subcultures, "many people are hybridizing and inventing new uses for the detritus of modern life. A key piece of that process is the cultural rejection of expertise that we find prevalent among DiY (Do-it-Yourself) youth" (95). This rejection of expertise was most commonly expressed through two venues: one of these is the spread of DIY bike cooperatives, and the other was through 'DIY urbanist' actions, of which Toronto's Urban Repair Squad provided the strongest examples. The bicycle has a close association with many DIY practices. Anibal Davila (2012) a member at the Bike Sauce shop in Toronto, explains that this is because "the machines lend themselves quite readily to hacking. You can see how it works... The mechanics are visible to the eye, there's not a black box on most bikes. It is super accessible, especially as children, it was the first taste of freedom that you had. Poor people have them, rich people have them, everybody's had some taste of a bicycle, as opposed to a car or a motorcycle or whatever." This rejection of expertise was also expressed in the actions of Toronto's Urban Repair Squad, whose actions are a mixture of symbolism and actual, practical instances of "city repair" (Reis, 2012). What ties DIY shops and DIY urbanism together is the attitude that anyone can (and should) be able to access, and fix, both their city and their transportation. The following section will look at how this DIY ethic was expressed in each case study.

DIY Bike Shops

I visited Bike Sauce, a DIY bike repair shop on Toronto's east side on a warm day in early spring. The shop intended to close at 6pm, but this schedule seemed unlikely judging from the scene when I arrived. The shop was filled with people preparing their bikes for the spring, volunteers, and visitors. Anibal, who I had come to interview, apologized and suggested I make myself comfortable and get some food. On Saturdays the shop provides a meal for volunteers, members, or anyone who happens to come into the shop. Anibal was remarkably calm in the midst of all the activity and various demands. People were stopping in to look at bikes, fix flats, or say hello well past closing time. Really, the shop was operating as much as a community hub as a bike repair shop.

Bike Sauce is one of a growing number of this type of shop appearing in cities across North America. In the mid 2000's, a few such non-profit, community run DIY bike shops opened in Toronto. These shops include BikeSauce, on the city's east end, and Bike Pirates, on the west end. Both shops offer tools and space to repair bikes, and provide a site for sharing and developing skills. In Calgary, two DIY bike shops opened in 2008: the first was "the Good Life" which set up in an underused downtown mall, and the Bike Root, which was established at the University of Calgary the following fall.

Though there is no real blueprint or model for DIY bike shops (they are DIY shops after all). They share a few things in common, though. All three DIY shops I spoke with shared an interest in building community and addressing social justice concerns, guided by a DIY ethic of empowerment combined with community reliance (Davila, 2012; Gordon, 2012; Rosemarin, 2012). The shops run on a not-for profit basis, and generally survive off of volunteer work and donations, as well as selling recycled bikes and, for some, grant money. The operation of each shop is a product of this DIY spirit. Bike Pirates, as volunteer and member Chloé Rosemarin (2012) explains, was started without much of a supporting body of knowledge about what works and what doesn't: "we were basically making it up. So the way that we're structured is basically trial and error, what works for us." Bike Sauce, similarly, was built through trial and error. Anibal Davila, who helped found Bike Sauce, came from Bike Pirates, and the other founding members had similar experience from other shops. In the

end, "all of those things are just chapters in the book of trial and error, " states Davila (2012). Each DIY shop must adapt to local circumstances and follow different founding goals.

DIY shops must frequently struggle with sustaining themselves while also maintaining their nonprofit and social justice goals. Carlsson (2007) described how bike cooperatives "exist on the verge
of co-optation. Everyday rent and survival confront DIY bike shop staffers with the necessity of
making money" (98). The Good Life, who aim to ultimately have their own space, have struggled
with having a sustainable space since their founding, and their current space is only a temporary
lease. The Good Life was forced to move in the winter of 2012 because the shop's landlord found
what he felt was a better fit for the space (Walton, 2012). The Bike Root, another Calgary DIY shop,
faced a similar situation, in which they were forced to move from a temporary space at the University of Calgary. In both cases, the community stepped in and new locations were found. The Calgary
Parking Authority, a municipal body, offered the Good Life a new space, and the Bike Root found a
location in a nearby residential garage. While finding a stable location has always been a struggle for
the Good Life, Liam Gordon (2012) feels that the City has been very supportive of their shop: "the
Calgary Parking Authority was really stoked on it, really supportive, and the City of Calgary's been
really supportive including [Mayor] Nenshi. The City of Calgary is really trying to push for more
bike culture, regardless of what the Calgary Sun [newspaper] says."

The desire for self-reliance and autonomy was most strongly expressed at Bike Pirates in Toronto. Bike Pirates works entirely through community donations and profits from selling recycled bicycles. The shop was started without any grants or other direct financial support, although they were given an inexpensive space to start their shop by a supporter. Chloé Rosemarin (2012), a long-time Bike Pirates volunteer, sees this autonomy as a strength. Accepting money from government or other organizations would complicate and potentially limit their operations, and so far they have been able to operate through donations and bike sales.

While some level of autonomy was important for these shops, they also identified community connections as key to their operations. They are all working to build stronger communities around cycling, and all rely on local communities for their survival. The development of strong communities was at least of equal importance to encouraging cycling, most notably at the Good Life. Liam Gordon (2012) describes The Good Life as a "a non-hierarchical, non-judgemental safe space for anyone of the community including oil barons to people that are staying at the drop-in centre to gather together over a common bond of bike love." Building community is a central aim at the shop. Like Gordon, Anibal Davila (2012) of Bike Sauce also felt that strong community was essential for the shop's survival. A shop like Bike Sauce would not survive in the suburbs, Davila argued, because of a weaker sense of community. According to Gordon (2012), at least 50% of his time goes towards education and events. The shop is well connected to the Calgary cycling community, the space is used by other community groups and serves as a community hub. Liam Gordon (2012) describes how "social justice has to involve the community, we rely on the community, we rely on all elements of the community for our donations... Good Life is pretty sustainable, with the help of the community. If we didn't have the community we'd collapse like every other business."

These DIY bike shops contribute to a larger effort to shift the image of cycling away from the male dominated "Captain Spandex" (Jensen, 2012) image of cycling. The key barriers to cycling repeatedly identified by these cooperatives were gender orientation and cost (Davila, 2012; Gordon, 2012; Rosemarin, 2012). In my conversation with Chloé Rosemarin (2012) about her work with Bike Pirates, she told me that these shops tend to be associated with radical politics mostly because of the not-for profit and social justice aspects they share in common. Furness (2011) argues that "a politicized, social justice-oriented approach to bicycling is certainly not a requirement for starting a community bicycle organization, but it is a comfortable fit with a set of programs that (1) implicitly critique the wastefulness of capitalism through recycling, (2) promote an environmentally sustainable mode of transportation, and (3) advocate self-empowerment and participation as direct alternatives

to consumption and alienation" (175). These groups focus on making cycling more accessible, and an overbearing political message detract from this goal. Guided by social justice concerns, they put these politics into practice instead.

Mobility and access have always been closely linked with issues of race(ialization), class, and gender. All three of these shops work to make cycling more accessible, both culturally and financially. Anibal Davila's (2012) vision for the Bike Sauce cooperative is that people will walk out knowing "that you don't need a store to have a bicycle and you don't need to buy your access to transportation." All three shops offer their tools and space on a by-donation basis, and all three have some form of earn-a-bike program. Earn-a-bike, as described by Liam Gordon (2012), is a way to help people with lower incomes get access to a working bike, while becoming part of a community: "they do a certain amount of volunteer hours, learning and volunteering and they end up earning a bike instead of us just giving them a bike, so it's a bike education, while building self-esteem, and a way of giving to the community without a hierarchy of giving and then receiving."

While the Good Life, Bike Pirates and Bike Sauce were each quite aware of the barriers to cycling posed by skin colour, culture, and socio-economic status, gender and sexual orientation were the barriers they were most concerned with addressing. 12 The bicycle has played various and shifting socio-cultural roles through history —for example, at one point being viewed as a liberatory force for women (Furness, 2011: 20), many of these cooperatives feel that bicycle culture is now (straight) male dominated. Statistics on utilitarian cyclists in both cities confirm that urban cycling is generally a male-dominated activity. In Calgary, data from 2006 shows that the gender split among downtown commuter cyclists is significantly skewed towards males. The percentage of female cyclists downtown dropped from 24% in 2000 to only 21% in 2006 (Calgary, 2011). In Toronto, in 2009, the gen-

¹² There are also specific programs aimed at making cycling more accessible to newcomers to Canada, such as the 'bike host' program in Toronto. This program is a partnership between Cycle Toronto and Culture Link, in which volunteer mentors are matched with newcomers, to show them around by bike and helping them learn to cycle in Canadian cities.

der split for utilitarian cyclists was 57% male and 43% female (Toronto, 2010). Liam Gordon (2012) explained that the Good Life offered specific hours for women and transgendered people because "they're generally not involved in bike culture as much, because bike culture is really like middle class, to upper class male oriented, and spaces like this really try to break down that bike culture." Bike Pirates, similarly, has trans- and women only hours, in an effort to "address the difficulties many women and trans- people encounter when trying to access cycling by creating as safe a space as possible for learning, socializing, and empowering our selves and each other" (Bike Pirates, n.d.).

Despite these efforts, there are definite remnants of a more discriminatory, exclusive cycling culture that all of these shops must deal with. "It's a perennial issue" at Bike Sauce, says Anibal Davila (2012). In response, Bike Sauce has implemented a "very pragmatic code of conduct," trying to ensure that they take control of any discrimination. But ultimately, beyond policies, Davila argues that it is most important to create as inclusive a culture as possible to control discrimination: "we don't allow ourselves to ignore little incidents, so if somebody brings something up, it goes to the board, and if they can't kind of work it out, it comes back to the membership." Partially because urban cycling has been perceived as a dangerous activity, a typically male-dominated 'macho' element is well-engrained in North American bike culture. Transforming bike culture to become more inclusive will be a very gradual process, and will require more accessible, safer infrastructure in combination with the culture and empowerment work that DIY shops like the Good Life, Bike Pirates, and Bike Sauce provide.

The approach these shops take is to simply put more bikes on the street by creating a more inclusive cycling culture, enabling potential cyclists to get out and ride. Bike Sauce, originally intended to be a hybrid advocacy organization-cycling cooperative found that the DIY direct action approach won out:

I think the hands-on aspect of mechanics makes it so much more accessible, the kind of beginning of the learning curve is so shallow, it's so easy to come in and learn to fix your own bike without realizing that if you do it weekly, suddenly you don't need a bike shop, if you

start volunteering, suddenly you're not really a normal citizen anymore, suddenly you're an activist by accident (Davila, 2012).

Similarly, Bike Pirates is pushing cycling forward by simply encouraging people to ride, regardless of what municipal government support is like, "[b]ecause it is ultimately visibility that will increase our numbers... So it really is people, at a certain point, standing up and being counted. And I don't really know, short of people having good bikes and being willing to ride, I don't know how else to encourage that. Which is why I like Bike Pirates, because I do think it actively encourages that" (Rosemarin, 2012). In the absence of safe cycling infrastructure, it might be difficult to encourage a real widespread adoption of cycling for transportation. Regardless, these groups, instead of waiting for cities to take significant action making cycling an important part of the transportation mix, attempt to create this shift through direct action.

DIY Urbanism

In the mid-2000's, despite the City of Toronto's lack of progress on the 2001 bike plan, new cycling infrastructure began appearing overnight on streets around Toronto. On Bloor Street, a 'rush hour bike lane' appeared (and reappeared), despite the City's efforts to erase it. Prohibitive 'no-bike' stickers at subway stations were changed to more 'bike-positive' signage. On Hallam Street a 'sharrow' was painted, and remained for years before being replaced by City-approved markings. One Easter long weekend, the figures of a giant pedestrian and cyclist appeared alongside the City of Toronto logo seen by drivers as they enter the city along the Queen Elizabeth expressway. The City of Toronto was taking too much time implementing its 2001 bike plan, and a group called the Urban Repair Squad decided to do the work for them. Martino Reis (2012), who documents the group's actions, says: "I think they just got tired of the lack of infrastructure that was going in for the bike plan that was proposed and adopted in 2001, promised 450 km of bike lanes by 2011, by 2005 they

¹³ A sharrow is an on-street pavement marking. They are intended to mark the ideal for position for cyclists riding on a street, and to alert motorists that the route is to be shared with cyclists. These lanes are shared by motorists and cyclists.

had put in 30. So people realized they'd been had, basically. And the funding wasn't there, and so they were just dragging their feet big time." DIY actions are born from a variety of motivations, but in Toronto they have been primarily intended as creative responses to frustration over inaction on the City's cycling plan.

Groups like the Urban Repair Squad, and Advocacy for Respect for Cyclists before them, try to introduce levity to sometimes antagonistic streets. There is a playful undertone to DIY urbanist approaches which also explains their wide appeal. As Borden (2007) argues, play is 'serious fun': "it tells us that aggression in cities is latent and not always detrimental, that being ridiculous is okay... that our urban spaces are not there just for purposes of work, tourism, retail and other supposedly important affairs, but also for having fun" (334). Cycling in Toronto is often an antagonistic affair, and Urban Repair Squad actions are an example of this 'serious fun.' As Martino Reis (2012) argues, "activists are constantly learning that the tougher things get, the funnier you have to get. Thats why there's a lot of humour, like making separated bike lanes out of lego... some of the installations aren't even permanent. You just want to be... almost like clowning, you know? Then do this thing, and people say 'ooh this is really cute. This is really cool!"

Humour shifts the dialogue away from the typical 'cyclists vs. drivers narrative' that often fuels antagonism. For Figueroa (2005), the utility of the 'politics of comics' is that they "separate political actions from the story line of tragedy and atmosphere of crisis that green politics and politics in general seems to offer, taking instead ironic stances that can focus on deflating pretences and mocking excesses" (199). Given the tone of most mainstream media coverage of cycling and the way it is discussed in Toronto City Hall, there is a strong need for a more playful approach to advocacy.

Advocacy for Respect for Cyclists (ARC) also took this approach in the late nineties, holding "parking meter parties" inspired by Tooker Gomberg and Angela Bischoff, who would rent a parking spot for an afternoon and occupy it with a couch, inviting passersby to hang out on the street (Smith Lea, 2012). Smith Lea (2012) says

We loved the idea, so we took it from there, for every bike month we organized a party in parking spots on major streets and just held a party so we would play games, have snacks, we would be handing out stuff to people cycling by. We organized it with whoever's business was going to be affected and mostly people were really supportive. At the time it was one of those things that seemed really risky, and kind of scary, we weren't sure if there was going to be conflict. But because we just approached it in a really fun way, we would dress up, people responded in kind, and it was always a really positive thing.

These actions, motivated by the frustration and antagonism often surrounding cycling in Toronto, work to turn the discourse around through humour. While this antagonism didn't feature as prominently in the Calgary case, city bike advocates have begun organizing a Cyclepalooza, which they describe as 'Ten days of bike fun.' The festival connects Calgary's bike culture around less serious issues and in a more grassroots, guerrilla style than Bike Calgary does, as Richard Zach (2012) explains. The appeal of cycling is often forgotten when cycling becomes an overly politicized issue. These events and actions are important in reminding people that cycling is enjoyable— of one of the most important, and convincing, reasons to ride.

While such DIY urbanist approaches were most prominent in Toronto, their influence could be seen in both Calgary and Toronto. There is a widespread appeal to these actions (aside, of course, from the City staff and politicians that they directly challenge). They express a romantic ideal in which citizens take creative control of their city, mixed with a justifiable frustration, to create a compelling "David vs. Goliath" narrative. The DIY approach arose in Toronto as a creative response to the frustration stemming from inaction on the City's 2001 bike plan. As one member of the group argues, "the passion that I'm talking with.... It's unbelievable, unbelievable, they just push cars and parking and that's what the situation is based on. It's crazy. I've been around activism for too long, I stopped waiting for it." While many could not officially condone the technically illegal Urban Repair Squad actions, nearly everyone interviewed was supportive. As Nancy Smith Lea (2012) of the Toronto Centre for Active Transportation explains, "I think there's a lot of support for that kind of action because everybody is frustrated. I think even people who can't say on the record that they're

supportive, they're like, thank god!" These actions are putting stated commitments into action, holding the City accountable: as Reis (2012) says, "[p]olitics is a game. It's about give and take. That's why the DIY movement goes and says wait a second, we're going to call you on this game, we're going to do this right now, and we're going to make it safer and permanent. We're going to show you what you stand for, as opposed to accept[ing] your little community participation projects, your [facilitation exercise] dotmocracy¹⁴, and then go back to it." These actions are based on a sense that the voices of drivers and some businesses are given more weight than local communities or marginalized street users such as cyclists and pedestrians.

DIY urbanism is an attempt at creating true 'citizen control' (Arnstein, 1969), with all of the complications that such citizen control might introduce. Hesitation to fully endorse actions like the Urban Repair Squad's were often based on grounds that the actions weren't entirely democratic, or that they ignored proper public processes. The Urban Repair Squad goes by the motto "your city is broken, we fix, no charge" (Reis, 2012). Toronto Councillor Mike Layton (2012), while supportive of people becoming involved in cycling activism, argued that "it's perhaps not that the City itself is broken, it's just you have other neighbours who don't see the world the same way as you do. Rather than confronting them head on, and saying no I'm right, you're wrong, you have to take a more conciliatory approach where you say well let's sit down and talk about the city that we want to live in, let's sit down and look." Cheri Macaulay (2012) of Calgary's CivicCamp, was similarly ambivalent: "It's a tricky one, it's something that I'm forced to think about a lot more lately, because I'm seeing its place. I don't know where the line is, but when I've crossed it, there it was back there, too far. But I do think that there is room for certain actions where you don't ask for permission, you just beg for forgiveness afterwards." However, the motivation behind these actions is a feeling that the process itself is broken, and the outcomes are predetermined. Parking and traffic flow will always win. These actions are not intended to confront other citizens, but rather to confront a government seen as ig-

¹⁴ Dotmocracy is a group decision making tool used in many planning consultation and visioning exercises.

noring citizens. Martino Reis (2012) had strong feelings about this issue. Asked about the need to consult before implementing cycling infrastructure, he states:

That is 100% bullshit. You know why? Because that is what they tell you when they do something that people are not going to agree with. If you go and say to the community we're going to make these streets really fast, and you can't ride your bike, that's... [what] politicians do, in order to delay or change things the way they want to. Again it's like, how can you justify risking someone's life because you think this street is reserved for cars (Reis, 2012).

In Calgary, feelings about DIY approaches were mixed. Relationships between advocates and municipal administration have not reached the level of antagonism found in Toronto. Jeff Gruttz (2012), of Bike Calgary, says engaging in the type of insurgent actions that the Urban Repair Squad does "would be counter to our mandate, which is to work with city staff and bureaucrats, via all means possible, unless everything is exhausted. We don't see that as a shortcut to better bicycling infrastructure in the city." Richard Zach (2012), continues this thought, but recognizes the romantic appeal of just going out and doing it yourself: "... it's hard because once you're involved with an organization like that, you want to be out on the street too, doing that under the cover of darkness, but of course you could never do it officially, [or] admit to it."

DIY urbanist approaches take a more creative stance, being less concerned with what is politically acceptable or 'rational' from an engineering perspective. The approach brings the rationalities that guide the creation of streets into question. As Zardini (2008) argues, the DIY approach to the city involves "a shift from the passivity in which we comply with what is offered up every day, to an active posture, not so much of resistance, but of a quest" (15). If we observe the contemporary urban world attentively, we see new forms emerge, "microbe-like, singular and plural practices that develop outside the rules and regulations that inform our current urban system" (ibid.). This 'posture of quest' described by Zardini is at the heart of DIY urbanism's appeal —citizens are feeling increasingly alienated from the production of their urban environments, and in reaction, some people are deciding to take greater control over their local environments. Citizens interact with their envi-

ronments as active producers of their city, rather than as passive consumers, who are "engaged," perhaps being permitted to comment on pre-conceived plans, but with minimal creative involvement. To enact the "right to the city" Lefebvre (1996) makes two propositions: first, "a political program, not defined by the framework and the possibilities of prevailing society or subjugated to realism" (155). The other is through planning projects "which do not concern themselves with feasibility or the appearance of utopian aspects" (155). DIY approaches allow a more imaginative form of interaction with the urban environment than potentially stifling or limited consultation and engagement activities. Martino Reis (2012) explains that "I think what [Urban Repair Squad is] trying to do is change the current status quo. When is the old status quo obsolete? It's sort of a Buckminster Fuller thing, if you want to change something don't change what exists now, but show what is possible. They've done stuff that is way beyond any kind of bike plan." Public engagement is too often concerned with how to work within existing planning norms —and not about how to change those norms. At present, despite stated commitments to more sustainable transportation, in both cities in this study, the needs of the private automobile still clearly dominate transportation planning decisions. Creative ideas for encouraging cycling and changing cities are stifled by the 'realism' of a transportation planning system built around the private automobile.

Urban Repair Squad actions range from actual, practical city repairs, to more symbolic, demonstrative acts. Mike Layton (2012), while less enthusiastic about the more functional, direct action type Urban Repair Squad actions, felt that the more symbolic actions are "[productive] from an activist point of view because it's showing, it's bringing a message to people, saying look, bikes go here. And that's not a bad thing." Similarly, Jared Kolb (2012) felt that Urban Repair Squad actions have an important place, because "...there's an opportunity to present a very graphic, artistic representation of what is possible, and I think there needs to be more of that."

However, beyond symbolic actions, these are also intended as real, physical 'city repairs.' Urban Repair Squad felt that some of the facilities they installed were like prototypes, such as the 'sharrow' painted by the group on Hallam Street in Toronto lasted for 2 years before being replaced by an official city-painted sharrow. One member of the group, Rosie (2012), says that "there is more openness than [the municipality] are willing to admit. What we do is the rush hour bike lane, it was inspired by rush hour bike lanes in other cities, and now College has a rush hour bike lane." Martino Reis (2012) argues that for the Urban Repair Squad, "for the most part, the actions are intended to be permanent, or [to last] as long as possible. Usually it's intended as a repair. Overall, it is a demonstration of how simple it can be to do something positive for your city. It doesn't take hundreds of thousands of dollars of design money. You can just design it, paint and put it in, install it, and it's done. It can be very efficient, you can engage your community, and show how we can make this safer."

Ultimately, both aspects of DIY urbanism's appeal stem from frustration: the citizen control ideal stems from a feeling of alienation from the production of our cities. The Urban Repair Squad is "your classic DIY story that the media loves. When citizens get fed up and things get caught up, just go and do the thing for yourself. Get the job done! No charge! So that's their motto, "we fix, no charge." Planning for the speed and flow of private automobiles requires a standardization that limits the ability of communities to take control of their streets. As de Certeau (1984) argues, "a symptomatic tendency of functionalist totalitarianism is that it seeks to eliminate local authorities" (113). Automobility is built on this 'functionalist totalitarianism'—it severely limits the realm of the possible within planning. DIY urbanism expresses a reaction to the dominance of the technical imperatives of automobile centred planning. These are creative responses to the frustration of feeling constantly and systematically left out of how our cities are built, despite lip service being paid to 'engagement' and commitments to sustainability. Modern cities are built on 'expertise,' limiting the potential for average citizen engagement. Their actions strive towards a type of 'spatial empowerment,' described by Fotel (2006) as "the process where urban residents and their organizations and representations gain control and command of the ways that relevant spaces and places are produced'

(741). While cycling and pedestrian issues are at the core of what Urban Repair Squad does, every action also expresses a desire to become more active participants in the production of urban space, and a rejection of the technocratic exclusivity of automobile society.

CONCLUSION: INSTITUTIONAL CHANGE

Introducing cycling infrastructure is often a highly politicized process, largely because it has not become a part of everyday transportation planning. Martino Reis (2012) feels that the way to depoliticize cycling is quite simple: "you just make it part of your planning. It's the street standards, the Ministry of Transportation of Ontario standards, people are working at changing the standards, which are messed up. There's no reason at all not to have a complete street." If the inclusion of cyclists becomes a part of everyday transportation planning practices, then perhaps the installation of cycling infrastructure will create less political controversy. Hess (2009) argued that in order to change street building practices, we need to change institutional and bureaucratic cultures in our cities to enable these new practices. This change has both a functional side and a cultural-political side. On the functional side, Nancy Smith Lea (2012) feels that "there is a possibility that we could get some good things happening even in this [Ford] administration... basically [what] we've been hearing from them is there needs to be more design manuals... [for] the staff and contractors doing construction and road operations to actually translate some of this policy into what we actually do differently on the street... I believe that's probably the most important thing to happen." However, making these changes acceptable will require a shift in transportation planning and engineering, as well as a political shift.

This shift is a gradual process: in both cities, the cycling advocates interviewed felt that a shift towards more cycling-inclusive streets was happening, although slowly. In Calgary, advocates, for the most part, felt that change was happening because of the city. Liam Gordon (2012) feels that the City of Calgary is working hard to create a bike friendly image, and noted that the mayor is a supporter of their shop. Bike Calgary is also supportive of the direction Calgary is taking. Jeff Gruttz (2012) feels that "politicians and the city staff are tired of doing the same same old same old resolving Calgary's transportation issues. They have woken up and recognized what is happening in other municipalities across Canada, North America and the world and it's time to accommodate bicycling

and pedestrian uses." Macaulay (2012) says that through her work with Civic Camp, she has seen a shift in citizen engagement, and a movement towards more sustainable transportation in the Calgary. Nicole Jensen (2012) feels that all the necessary policy is in place in Calgary, and now they need to work on implementation. She also notes a significant shift in the city's culture towards understanding and implementing cycling and pedestrian infrastructure. It was a struggle ten years ago, but Jensen (2012) feels there has been a shift, with more coordination around cycling: "I think there was no cycling infrastructure on the streets back when I started in 2002. Since that time, we definitely have more public support, we definitely have more political support, and administration is coming on board as well. Everybody's kind of on board now, and is really interested in this stuff."

Calgary is getting bolder in its support for cycling. In 2010 they helped bring prominent cycling advocate Mia Birk to Calgary for a public talk, and to consult with City staff and aldermen. Cheri Macaulay (2012) describes how

[it] was a bit of a leap of faith for the City... Administration can't, and probably shouldn't, be seen advocating for certain things. They don't want to advocate a position, but they recognize the value in sharing information and bringing awareness and getting people talking about the issue, [saying] 'Regardless of where you fall on that issue, get involved and give us your opinion on it.'

The City of Calgary recognizes that education and promotion is a key pillar of implementing the cycling strategy. Nicole Jensen (2012) says "what's happened with us is we've always just focused on the infrastructure, to just get it out and move on to the next project so that we can start to build our system, but we recognize those pillars that come in. You need that education and promotion bit, to see some of the changes that we're looking for... I think that Mia [Birk] is bang on, like you've got to celebrate what you do and I think that Calgarians are interested in that." The potential for a backlash is always present, but Pincott (2012) feels that this current momentum is sustainable if the City can take advantage of current support:

the goal is as far as I'm concerned is to try and get the ball rolling so strongly that you can't really change it... if we can start getting stuff on the ground... and you know what, I see more and more people biking every single day in this town, and the world is not falling apart.

In Toronto, advocates felt like cycling was growing despite the City. Interviewees felt that numbers of cyclists will continue to increase with or without the help of municipal government. Layton (2012) describes how, despite the fact the City has not done enough to help cycling, especially in the last two years, numbers of cyclists are always increasing. Also, many point to the new installation of separated bicycle lanes in the downtown as a positive shift, regardless of the current administration's general treatment of cycling. While the current situation is not hopeful in terms of infrastructure in Toronto, mode share is still increasing (Smith Lea, 2012). A strong cycling community, fuelling the current popular interest in cycling has kept cycling growing despite the City's neglect and backlash.

The feeling that 'we're just slower to catch up' was common in Toronto. While the cycling community is often frustrated with the current state of the city, they are also, for the most part, still hopeful. Martino Reis (2012) is confident that this shift to a bike friendly Toronto will happen eventually: "it starts out with the lip service and pushback and demonizing the other side, which is what we're going through right now. And then eventually they just realize that the public will no longer vote for you if you treat them as secondary citizens just because they're riding a bicycle." Cycling in Toronto is "something that will come naturally, and I think you see when you look at the cycling statistics, over the last ten years, cycling as a mode of commuting has grown significantly, and I believe it will continue to grow, but we're ways from normal, but I think we're on our way there" Mike Layton (2012) says. For now, Layton (2012) adds, "we're still at the point where we're banging from the outside to make change, but I don't see it far off when we start getting more recognition amongst the bureaucracy, ten years ago cycling wasn't as popular [or] wasn't terribly popular as a form of transportation. Like leisure, fine, but [not] transportation... So I think we're getting there, we're definitely yelling in a more coordinated and louder fashion, I don't know if we've quite broken into the building yet and taken control."

Cycling activists in both cities expressed the desire for a visionary planner or leader for cycling within city institutions; that, with the right leadership, Calgary and Toronto could also become bikefriendly cities. Nancy-Smith Lea (2012) says that among the active transportation community in Toronto "there's always this kind of hope that if we just had someone like Janette Sadik-Khan¹⁵ or Paul Bedford when he was the chief planner, somebody who is willing to stick their neck out." New York City, the same city that once nearly banned cyclists from three Manhattan avenues (Dunham, 1989) is now installing separated bike lanes and closing off streets in Times Square for pedestrians (Gelinas, 2012). As Jeff Gruttz (2012) notes, this is a significant achievement. It shows that if you can make safe cycling work in New York City, you can make it work almost anywhere. Another prominent advocate, Mia Birk, was also cited by advocates. Birk was responsible for the transformation of Portland, Oregon, into one of North America's most bike friendly cities. The City of Calgary brought Birk in to speak to Calgarians and to consult with transportation planning staff and city aldermen. In Calgary, there is a great deal of excitement about the recently hired cycling coordinator, Tom Thivener. Thivener was previously the cycling coordinator for Tucson, Arizona where he increased the modal share of cyclists to become the sixth highest among US cities (Anderson and Thompson, 2012).

Part of the Toronto Centre for Active Transportation's aim is to provide support for municipal staff working on cycling and pedestrian issues, so that they can "become advocates within government" (Smith Lea, 2012). In Toronto, the municipality is scaring away potential leaders like these. In Toronto's current administration, those who are willing to stick their necks out face being removed from their positions. Gary Webster, chief of the Toronto Transit Commission was an example of this tendency of the Ford administration. Webster was removed from his position without cause, after voicing opposition to Mayor Rob Ford's vision for transit in Toronto (O'Toole, 2012). Another

¹⁵ Janette Sadik-Khan was appointed the commissioner of New York City's department of transportation 2007, and has since lead a significant shift in the city's approach to cycling.

is Toronto's Chief Health Officer, who recommended lower speed limits. In reaction to the Chief Health Officer's recommendations, Councillor Doug Ford publicly questioned "why does he still have a job?" (Spurr, 2012). While the Ford administration has presented a particularly difficult time for advocates for pedestrians, cyclists and transit users within Toronto's municipal government, Toronto's institutional culture has made change difficult for some time. Nancy Smith Lea (2012) says there are many advocates for better walking and cycling within Toronto's City Hall, but they are being stifled: "it's really not a very healthy culture in City Hall in terms of being supportive of making these kinds of changes... because the staff need to stick their necks out and fight in order to get this stuff considered and passed." Advocacy organizations play an important role in supporting institutional advocates in promoting change.

To emphasize only leadership ignores the input of countless activists and advocates who have been working to push cycling forward. While the right leadership will certainly have a significant effect on the direction cycling takes in both Calgary and Toronto, they need the strong base provided by the types of advocacy groups described in this research. As Andrea Garcia (2012) noted, "when you look at cities that are doing really great things for cycling, almost all of them have a really strong, incorporated, professional member based, moderate cycling advocacy group. There are very few examples of sort of a City doing something completely on their own." Both formal and more insurgent actors have a significant influence on the state of cycling. Asked about the Urban Repair Squad's influence, Martino Reis (2012) said he "think[s] it's definitely influential. At least in terms of keeping [officials] honest, and having to constantly respond... the idea with any kind of activism is to keep people honest, to keep them on their toes, to show reality for what it is and show what can be done." As Smith Lea (2012) noted, there are numerous advocates for cycling within our municipal governments, and by connecting with and supporting these advocates, these organizations might be able to promote 'complete streets.' Advocates act as both critics and support. The cycling community in Toronto is strong and diverse: "we have way more cyclists now than we used to. We have

way more winter cyclists now than we used to. We have Bike Pirates, Bike Sauce, we have that DIY infrastructure and we have this alternative bike culture as well as the mainstream one. We have a lot more commuter cyclists. So we are going in the right direction" says Chloé Rosemarin (2012).

As this research has helped to demonstrate, promoting urban cycling requires a multi-faceted effort, looking beyond infrastructure to include education, culture and larger institutional change. Still, infrastructure remains at the core of a great deal of cycling advocacy and research. This is in part because physical infrastructure is tangible evidence of more cycling-friendly streets, but there is more to this sometimes overwhelming focus on cycling infrastructure over other cycling concerns. At the core of infrastructure's potential for encouraging a cycling boom is that it makes cycling accessible. Appropriate, safe cycling infrastructure, such as separated bike lanes on fast moving streets, can make cycling a mode of transportation that will be used by cyclists of any level of ability or experience. Improving cycling education and cultures is also essential, but can only go so far in encouraging the 'interested but concerned' cyclist to ride.

Improving cycling infrastructure is the most difficult aspect of creating more bike friendly cities. There are numerous cultural and political barriers to making cycling a normal and viable transportation choice. In many instances, the political will to implement cycling infrastructure is lacking- this is where planners concerned with encouraging cycling should be utilizing the energy and knowledge of cycling communities, found in abundance in both of this research's case study cities. Holston (1998) argued that planners need to be able to recognize the insurgent forms of mobilizations and everyday practices. He proposes a dualism between insurgent citizenship and state building, and the tension between the two can be productive and progressive, if both are allowed to exist. Planners must incorporate ethnography in their practice to recognize insurgent citizenships and their relationship with state based planning. As Holston (1998) argues, "[a]bove all, planning needs to encourage a complementary antagonism between these two engagements. It needs to operate simultaneously in two theaters, so to speak, maintaining a productive tension between the apparatus of state-directed

futures and the investigation of insurgent forms of the social embedded in the present" (54). Raising the political will necessary to make Canadian cities truly bike-friendly will require planners to look to "insurgent" community-based planning and advocacy practices to build the necessary support for their transformative goals.

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