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The politics of bicycle lane implementation: The case of Vancouver's Burrard Street Bridge

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ABSTRACT

Shifting commuters out of cars and into active modes of transportation such as bicycling is necessary if communities and cities are to become more environmentally sustainable. Coupled with the resistance of drivers to change modes is a resistance on behalf of the politicians they elect to support the building of infrastructure for active transportation, particularly when this means taking resources away from the dominant automobile-based mode. Before scholars promote specific policies or methods for dealing with such issues, it is necessary to understand what strategies have been successful and unsuccessful in attaining a shift of resources into active transportation infrastructure such as bicycle lanes. Vancouver presents a case study of both such strategies. In 1996 a pilot project aimed at transferring a lane on the Burrard Street Bridge from cars to bicycles failed and ended in political acrimony. However, another such pilot attempted in 2009 was successful with the lanes made permanent shortly afterward. This article documents what transpired and analyzes the reasons for the initial failure and the subsequent realization 13 years later. The Burrard Street Bridge story provides lessons for how bicycle lanes, even those that take space away from cars, might be implemented in other contexts, given the reality of a politics that favors a status quo dominated by automobility.

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1. Introduction

It is increasingly acknowledged that if environmental sustainability is to be supported and the ecological footprint of human society is to be reduced, active modes of transportation will need to increasingly replace car-based trips (Dodds, 2008; Wackernagel & Rees, 1996). The bicycle is the most energy-efficient mode of transport, and for this reason is favored among other forms of active transport as a solution to the mobility and environmental challenges facing contemporary cities (Mapes, 2009). Scholars and policy makers are increasingly recognizing cycling as an important part of the mix of urban transportation options, with diverse benefits for the local economy, rider fitness, community development, and emissions reductions (Clifton, Morrissey, & Ritter, 2012; Cradock et al., 2009). In North American cities, cycling makes up a small fraction of all work-related travel trips, less than 6% in every major urban area, so there is much room for growth of this mode (Pucher, Buehler, & Seinen, 2011).

Among the most popular and effective policies to boost urban cycling is the implementation of separated bicycle lanes on city streets, often in conjunction with other cycling-supportive measures such as expanding the amount of secure bicycle parking, improving the integration of bicycles with public transit, and the introduction of citywide bike share programs (Buehler & Pucher, 2012a; Cervero, Sarmiento, Jacoby, Gomez, & Neiman, 2009; Garrard, Rose, & Lo, 2008; Hunt & Abraham, 2007; Larsen, Patterson, & El-Geneidy, 2013). Building on the success that Dutch and Danish cities have had encouraging bicycle usage by building dense networks of separated bike lanes, an impressive array of cities have recently followed suit. The continent's upper tier world cities such as New York, San Francisco, Vancouver, and Montreal are undertaking ambitious programs to reallocate hundreds of kilometers of existing road space from motor vehicle lanes to bike-only lanes. Likewise, bicycle lane projects have been implemented in medium- and small-sized urban centers such as Portland, Minneapolis, Santa Barbara, Victoria, and Guelph (Buehler & Pucher, 2012b).

Although gaining in popularity, separated bicycle lane projects that involve the removal of road space for motor vehicles are often highly controversial, invoking discourses of "war," and precipitating heated debates about the place for cycling and cyclists in the mix of viable options for urban transportation. Indeed, despite their relatively small capital costs compared to investments in road and public transit infrastructure, proposals to implement bicycle lanes have become an outsized political problem. Such a situation has galvanized proponents who see cycle lanes as an important step toward a more sustainable urban transportation system, as well as pro-automobile groups frustrated at the prospect of increased traffic congestion assumed to occur if road space is taken away to support alternate travel modes. During recent election campaigns in many cities, local proposals to implement separated bicycle lanes on

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city streets have been identified as a major wedge issue. In New York City, the implementation of bicycle lanes in Brooklyn across from Prospect Park faced repeated legal challenges from neighboring residents who felt the project worsened local traffic and was unsafe for pedestrians (Mapes, 2009; Musumeci, 2012). In Toronto, the victor of the 2010 mayoral election made "stopping the war on the car" a key slogan and the removal of a new single bike lane on a major thoroughfare one of his main campaign promises (which he then kept), leading some commentators to declare his regime was waging a "war on bikes" (Margolis, 2012; Walks, 2015).

Against this backdrop of political contestation, the exact mechanisms through which bicycle-friendly policies gain political approval, especially in contexts where only a small fraction of all travel trips are made by bike, have not been well established. To date, there has been much research exploring the argument that investments in bicycle infrastructure deliver substantial transportation, economic, and social impacts (Clifton et al., 2012; Pucher et al., 2010). Recent studies have documented the legislative frameworks, regulation, governance structures, and funding models that support the expansion of cycling infrastructure (Aldred, 2012; Cradock et al., 2009; de Zeeuw & Flusche, 2011; Forsyth & Krizek, 2010; Rietveld & Daniel, 2004). Scholars have also examined the varied cultures associated with cycling and the social movements that have emerged to promote more cycling-friendly urban policies (Batterbury, 2003; Blickstein & Hanson, 2001; Horton, 2006; Spinney, 2010). Research has demonstrated a widening electoral divergence in both partisanship and policy preferences between inner-city neighborhoods and more automobile-dependent suburbs in Canada (Walks, 2004, 2006), yet there has been limited study of the electoral politics of bicycle infrastructure implementation (see Castillo-Manzano & Sánchez-Braza, 2012). The implementation of bicycle lanes not only involves technical expertise in identifying appropriate locations, finance, and governance models, or best-practices for building new facilities, but also highly politicized struggles and political strategies embedded within the electoral context in which these projects are delivered. There is a need to better understand the ways that politicians come to support certain cycling-friendly policy alternatives in the face of strong opposition from motorists, residents, retail business owners, and other growth coalition members, who may be (or perceive themselves to be) adversely impacted by expanding space allocated to cycling.

In this article, we examine the political calculations and strategies that politicians use to support and implement investments in bicycle infrastructure. To do so, we focus on the politics and decision making surrounding the implementation of one of Canada's most ambitious and controversial separated bicycle lane projects: the Burrard Street Bridge bike lane in Vancouver. Vancouver is a city that has been widely recognized as a North American leader in the provision of urban cycling infrastructure. It also has the highest travel mode share by bicycle of any large city in Canada, a share that has risen consistently over the past decade (Pucher et al., 2011; Translink, 2011). However, as we will show, even in this relatively cycling-friendly community, the reallocation of scarce road space to bicycle-only lanes on a major thoroughfare was a polarizing political issue, and it took over two decades of debate and false starts before the project went ahead. Our analysis identifies the local contextual factors, technical arguments, and political conditions that ultimately coalesced to make the implementation of the Burrard Street Bridge bike lane project politically feasible. Although the Burrard Street Bridge project and Vancouver have unique characteristics related to the local context, they nonetheless provide insights into the political dynamics of implementing cycling infrastructure that may be relevant to other cities looking to apply similar policies.

2. Methodology

This article is the result of information collected through three complementary research methods. First, we analyzed three decades of public policy documents, City of Vancouver staff reports, and media coverage regarding the implementation of bicycle lanes on the Burrard Street Bridge. Second, semistructured interviews were conducted with fourteen key informants involved in the decade-long process to implement the Burrard Street Bridge bicycle lane. This includes five current and formerly elected Vancouver City councillors and the current mayor of Vancouver, six political strategists and stakeholders who were involved in devising the competing political positions toward the Burrard Street Bridge bike lane, two City of Vancouver planners who oversaw the 1996 and 2009 trials, and the City of Vancouver's director of transportation. These interviews provided a diverse range of perspectives on the history and politics of bicycle policy in Vancouver. They were also analyzed to identify the essential political elements for a successful bicycle lane project that were consistently recognized across partisan lines.

Third, we obtained access to data from the internal public opinion polling that the Vision Vancouver municipal political party conducted during the 2008 election campaign. The poll data examined the popularity of their campaign platform promise to implement a dedicated bicycle lane on the Burrard Street Bridge, a policy that Vision Vancouver (the political party that won the 2008 municipal election) ultimately implemented. This data set provides unique insight into the political calculations that are made when developing public policy toward controversial bicycle lane projects in the midst of a heated election campaign. Taken together, the data collected from these methods provide a rich and nuanced perspective on the electoral politics of implementing dedicated bicycle lanes.

3. Antecedents: The history of Burrard Street Bridge and its bike lanes

The implementation of dedicated bicycle lanes the world over is guided by a common set of motivations to improve urban cycling safety and attract new riders (Pucher et al., 2011). At the same time, although there are always unique local dynamics at play, bicycle lane projects commonly face similar challenges related to competition over the allocation of scarce road space, difficulties with facility design so that adjacent land uses still have vehicular access to their properties or parking, and sometimes concerns about spoiling the aesthetic of heritage streetscapes (Castillo-Manzano & Sánchez-Braza, 2012).

Vancouver's unique geography, policy context, and the history of the Burrard Street Bridge exacerbated the contentiousness of the lane reallocation project, but also provided the foundation for the coalescing of the political dynamics that ultimately made the project possible.

Geographically, Vancouver is a city bisected by water. As illustrated in Figure 1, the downtown core is situated on a peninsula, with bridges providing the only connection from the south to the downtown. Currently, there are three bridges providing a total of 20 lanes of traffic into and out of the downtown core, which is the largest employment hub in the entire province, and an increasingly dense residential center as well. There has been a long-standing public policy and community concern about limited transportation connectivity with the downtown core from the south, and a visceral understanding that the reallocation of existing bridge space to cycling necessarily takes space away from other modes of travel, be it cars and buses that use the vehicle lanes, or pedestrian sidewalks.

Vancouver's Burrard Street Bridge opened across the mouth of False Creek in 1932. Today it is the furthest west of the three bridges crossing False Creek, providing the most direct link between the city's western downtown neighborhoods that have population densities above 200 persons per hectare (City of Vancouver, 2012), and the affluent west side neighborhoods of Kitsilano, Kerrisdale, and Point Grey, as well as the University of British Columbia, which is the second largest employment hub in the province. The Art Deco–designed bridge was engineered to accommodate six lanes of motor vehicle traffic—three northbound into the downtown and three southbound into the westside neighborhoods—with pedestrians accessing the bridge via narrow sidewalks on both sides of the bridge. The bridge is the oldest crossing of False Creek, and the unique design means that the bridge is now considered a heritage structure.

Conflicts between motorists, pedestrians, and cyclists on the Burrard Street Bridge have been ongoing for decades. When the bridge was designed, motor vehicle and pedestrian use were the only modes of transportation considered, and dedicated space for cyclists was not provided. As such, cyclists using the bridge either had to cycle in fast-flowing mixed road traffic, or as was more often the case, illegally share the narrow sidewalks with pedestrians. In the early 1980s, as the popularity of cycling as a mode of commuting into downtown grew, meetings between city staff and bicycle activists led to a recommendation for cyclists to bicycle on the sidewalk in newly painted lanes.

However, this sharing of the sidewalks between cyclists and pedestrians led to serious safety problems on the bridge. As the Burrard Street Bridge's sidewalks were only 8 feet, 6 inches wide and there was no barrier between them and the motor vehicle lanes next to them, the city's measures to direct cycling flows did not prevent an increasing number of cyclist and pedestrian accidents through the 1990s. There were also cases of cyclists falling off the sidewalk and into the vehicle lanes (Griffin, 1998). Knowledge of these accidents, and the fact that some of them resulted in lawsuits, was generally not made public. City council dealt with them in confidential in camera meetings.

A final contextual factor influencing the implementation of the Burrard Street Bridge bike lane project is the public policy environment in Vancouver. Vancouver has long been a central hub in the global environmental, urban livability, and sustainability movements, spurred by an active and mobilized citizenry: Greenpeace was founded in the city in the early 1970s; Vancouver hosted the first United Nations World Urban Forum in 1976, which raised questions about the environmental impacts of urbanization; and local scholars developed key environmental concepts such as the ecological footprint (Wackernagel & Rees, 1996). This deep consciousness toward sustainability and urban livability has translated into the local political and public policy arena. In the early 1990s, the City of Vancouver became the first municipal government in the world to develop a strategy to address global climate change, and subsequent policy documents identified prioritizing cycling and walking ahead of car travel as key measures to reduce local greenhouse gas emissions (Punter, 2003). Moreover, a vigorous civil society has emerged to contest the direction of transportation policy in Vancouver, with nongovernmental organizations mandated to promote sustainable transportation and cycling pitted against local business groups, the freight movement industry association, and resident associations concerned with enhancing motor vehicle mobility in the region.

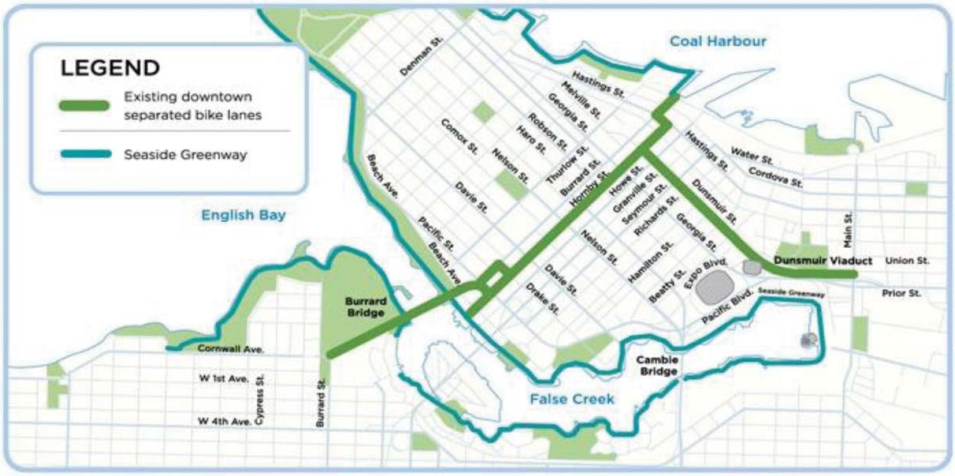

Figure 1. City of Vancouver's map of separated bike lanes (City of Vancouver, 2012).

4. Lessons learned from the first Burrard Street Bridge bike lane trial

As illustrated above, there was a coalescence of geographic, historical, legal, and policy antecedents that provided the impetus to implement bicycle-only lanes on the Burrard Street Bridge. In practice, ongoing city staff legal concerns, in combination with increased media reporting and growing public awareness about safety problems for cyclists and pedestrians on the Burrard Street Bridge, ultimately spurred political action. In the fall of 1994, Vancouver city council responded to concerns about safety on the bridge by initiating a "comprehensive planning and public consultation process" to develop options to "improve conditions on the Burrard Street Bridge and connecting roadways for cyclists and pedestrians" (City of Vancouver, 1996b). This process resulted in city staff generating three options for council: (a) build sidewalk extensions on the outside of the Burrard Street Bridge; (b) extend the sidewalks inward and reduce road capacity into the downtown by one lane; or (c) maintain the status quo (City of Vancouver, 1996b).

At the time, Vancouver city council was dominated by councillors from the Non-Partisan Association (NPA), a center-right pro-business political party that had controlled council for much of the past half century. The NPA had a history of promoting transportation policies that were pro-car, and their core electoral constituency was affluent residents on the west side of Vancouver who tended to favor the status quo. The NPA councillors worried that removing a traffic lane would worsen vehicle traffic into the downtown core, and thus favored extending the sidewalks outside the existing bridge. However, vocal proponents of heritage preservation were very concerned about undermining the visual integrity of the much-loved art deco bridge structure, and the cost involved in extending the sidewalks presented a problem for the treasury. In response, NPA councillor Gordon Price championed the idea of a bike lane trial in 1996 (Meggs, 2009). Price was able to win majority support on council for the trial by arguing that it was "reasonable to think that if it was at all possible to have a bike lane within the existing right-of-way that it would save a whack of dough. . . . At least it was sufficient to justify the rest of my colleagues in the NPA support [ing] it even though they were very skeptical" (G. Price, personal communication, December 2, 2010).

The June 1996 trial was projected to cost $50,000 and entail a minimum of three different lane reconfigurations (City of Vancouver, 1996b). After considerable debate about the technical merits, it was decided that the trial would start with the closing of one northbound lane into downtown, because this configuration was predicted to cause less traffic disruption than the alternatives. In the weeks leading up to the trial, signage was erected at the entrances to the bridge notifying users about the lane closure. Despite efforts to manage the technical implementation of the bike lane trial, the public relations and political imagery of the project's rollout were not well considered. As Gordon Price recalls, the first day was "a disaster [with traffic] backed up way down Cornwall and up Burrard and people were just going hysterical" (see Figure 2). Exacerbating the public relations trouble for the project, the City of Vancouver's lead architect of the trial (the bicycle program coordinator in the city's transportation department, later the sustainable community program coordinator) recalls that there were "news crews there filming and interviewing angry drivers . . . [and] all three networks ran it on the national news and I think the local politicians felt pretty foolish" (P. Stary, personal communication, December 15, 2010). The heavy media coverage of the trial was overwhelmingly negative, based primarily on the observations of reporters stationed at the bridge witnessing heavy traffic during the initial days of the trial, and interviews with unhappy motorists (Bohn, 1996; Bula, 1996; Clark, 1996; Colebourn, 1996). This helped construct the dominant narrative of the trial's failure in the face of alternate indications that broader public opinion toward the trial may have been more evenly divided than was reported, especially as motor vehicle traffic levels and delays on the bridge began to subside toward the end of the first week of the trial. A City of Vancouver staff report noted that response from the high volume of public feedback they received (upwards of 700 comments) regarding the trial was evenly split between support and opposition (City of Vancouver, 1996a).

Figure 2. The first morning of 1996 trial on Burrard Street Bridge.
Source. Pricetags blog, 2 July 2012 (photo used with permission).

After the first day of the trial, and with all the negative media attention amplifying the level of public outcry, there was "an emergency meeting [held for city councillors] . . . and everyone understood it was going to be killed, it was just a matter of when" (G. Price, personal communication, December 2, 2010). After seven days of what was meant to be a 6-month trial, the 1996 trial was cancelled and all six lanes were returned to vehicle use (Bula, 1996).

Despite the political failure of the 1996 Burrard Street Bridge bike lane trial, there were signs that it had actually been a highly effective transportation policy. A City of Vancouver staff report noted that by the cancellation of the trial, cyclist usage of the bridge went up by 39% while motor vehicle traffic came down by 8,800 car occupants a day, or 9%. Additionally, travel times for motorists and transit vehicles increased by 3–4 minutes (City of Vancouver, 1996a).

It is widely agreed that the key error with the implementation of the 1996 trial involved the public relations and political dimensions of executing such a controversial policy, and an overestimation of the extent to which the public and the media would be inclined to look favorably on lower cost sustainable alternatives to the car. This is a lesson that continued to

challenge politicians looking to resuscitate the proposal and implement a dedicated bicycle lane on the Burrard Street Bridge over the next two decades.

5. Another kick at the can

Following the conclusion of the Burrard Street Bridge bike lane trial, Vancouver city council continued pursuing enhancement of the city's wider cycling network by improving the connectivity of on-street, mixed-traffic cycling routes (City of Vancouver, 2006). At the same time, the NPA-controlled city council shifted their focus toward proposals to widen the sidewalks of the Burrard Street Bridge to accommodate cycle-only lanes, commissioning numerous detailed engineering and cost studies. However, in 2002, the NPA were voted out of office and replaced by a mayor and majority of councillors from an upstart political party, the Coalition of Progressive Electors (COPE). COPE had never held a majority on city council in Vancouver. A strong driver of the party's success can be attributed to the charismatic leadership of their successful mayoral candidate, Larry Campbell, a retired police officer and former chief coroner, who's most widely noted policy proposal was to promote a drug policy based on harm reduction rather than criminalization. Yet COPE and its councillors were mainly activists that were champions for a variety of progressive causes revolving around urban sustainability, environmentalism, and social justice, issues that came to define the election in a context of rising concerns about congestion, rapid urban development, gentrification, and growing social polarization (Brunet-Jailly, 2008). With COPE now in power, an on-street bike lane option on the Burrard Street Bridge was back on the public agenda, alongside more aggressive measures to prioritize walking, cycling, and transit.

In 2005, a new city staff report came before council outlining the options to implement separated bicycle lanes on the Burrard Street Bridge. Staff tabled two options: (a) widening the bridge's sidewalk at an estimated cost of $13 million, and (b) implementing a trial to reallocate two traffic lanes to separated bicycle lanes at an estimated cost of under $1 million (City of Vancouver, 2005). In response to the staff recommendation, nine COPE councillors and one NPA councillor voted 10 to 1 in support of directing staff to initiate a one-year, two-lane reallocation of the Burrard Street Bridge's two curb lanes into separated bike lanes, while approving further study of the outward sidewalk expansion as a fallback option if the trial was unsuccessful (City of Vancouver, 2005). The trial was scheduled to commence in April 2006. As with the trial in 1996, cost was a significant political motivation for selecting the lane reallocation strategy over the bridge-widening option. Fred Bass, a popular COPE City Councillor in the early 2000s and prolific cycling advocate recalls arguing to the mayor and council colleagues at the time: "I think what we can do is a trial. . . . If it passes both ends then go for it and we save ourselves $15 million right off the bat" (F. Bass, personal communication, December 10, 2010).

The decision to proceed with a lane reallocation on the Burrard Street Bridge rapidly elicited strong reactions from supporters and opponents alike. It also proved to have significant political ramifications in the 2005 municipal election. Fred Bass remembers "a lot of people were stirred up [about the bike lanes] by the paper, but also by the NPA. The NPA was campaigning on the bridge all the time [and] I lost more votes between 2002 and 2005 than 90% of candidates ever get. I lost 21,000 votes" (F. Bass, personal communication, December 10, 2010). Peter Ladner, a popular NPA councillor who had gone against his party's stated opposition in originally voting for the bike lane trial, also recognized the political impact of his earlier decision, when he decided against making a run for the NPA mayoral nomination at that time. As Ladner explained in an interview:

> [East] of Burrard nobody [could] care less. But, west of Burrard it's a pretty big issue because everybody uses the bridge. And people had the attitude there even more than we have today [of] "why would you spend a lot of money to inconvenience car drivers who number in the thousands for the sake of cyclists who number in the hundreds?" (P. Ladner, personal communication, December 15, 2010)

The two-lane Burrard Street Bridge bike trial was not the primary issue in the 2005 election, but it did influence voters in certain areas of the city. In the November 2005 election, COPE (and a new upstart progressive party Vision Vancouver) was once again replaced as the majority force on council by the NPA, who won 6 of 11 council seats. The next month, a now-NPA dominated city council voted 6–5 to cancel the two-lane trial reallocation while advancing the sidewalk widening to the final design stage (Mickleburgh, 2005). However, implementation of the sidewalk expansion was delayed by reports of dramatically rising costs to upwards of $63 million (City of Vancouver, 2009a). As a result the sidewalk widening was put on hold until after the fall of 2008, when the next municipal election was to be held.

6. A bike lane at last

In the 2008 election, the main mayoral candidates were Vision Vancouver's Gregor Robertson (who was endorsed by COPE) and the NPA's Peter Ladner. Robertson's campaign policy was to implement a one-year trial reallocation of only a single lane of vehicle traffic on the Burrard Street Bridge to create separated bike lanes. His plan also involved restricting all pedestrians to the sidewalk on the west side of the bridge. Peter Ladner's 2008 election platform was for the immediate installation of barriers between the bridge's sidewalks and vehicle lanes. Neither proposal received support from the Vancouver Area Cycling Coalition, which held a press conference criticizing both proposals and calling for a two-lane bike lane trial over the Burrard Street Bridge (Rolfsen, 2008). Nevertheless, Vision Vancouver's strategy was widely seen to be politically prudent. As Fred Bass explained in a 2010 interview, Vision Vancouver correctly positioned themselves "in the middle. 'I'm not a wild two-lane person. I am a cautious one-lane person. . . . We're prudently green'" (F. Bass, personal communication, December 10, 2010).

Robertson and Vision Vancouver handily won majority control of city council in the 2008 election. The bike lane issue itself likely had little effect on the election result, partially because Vision's margin of victory was so large and partially because Ladner and Robertson were both seen generally as

environmentally progressive candidates. Nevertheless, as we discuss below, it did serve an important role in differentiating Vision Vancouver from their NPA competitors, and mobilized support among their base of pragmatic, environmentally conscious voters. On 7 May 2009 Vancouver city council voted 8–2 to proceed with the trial option to convert a single southbound traffic lane to a separated bike-only lane at a cost of $1.45 million, despite COPE, cycling advocates, and staff recommending it should be a two-lane trial (Brake, 2009; City of Vancouver, 2009a, 2009b).

In the lead-up to the trial there was much criticism and speculation that this trial would result in severe traffic congestion, that it would significantly inconvenience pedestrians now forced to use only one side of the bridge, and that it would ultimately fail just as the 1996 trial had (Ballantyne, 2009). When the one-lane trial opened to the public on 13 July 2009, it was accompanied by significant media coverage; however, there was no abnormal traffic congestion to report (Mickleburgh, 2009; Sinoski, 2009). In addition to being a political success, the project was identified as a policy success. A 2009 city staff report highlighted that cycling trips over the Burrard Street Bridge had risen by 70,000 or 26% in the first three months of the trial. Pedestrians surveyed were positive about having a sidewalk to themselves free from cyclists, although some discontent remains about the loss of access to one side of the bridge for walkers (Burrows, 2012). Furthermore, general travel times for buses and motor vehicles traveling on the Burrard Street Bridge remained relatively unchanged (City of Vancouver, 2009a). In July of 2010 city council voted to make the Burrard Street Bridge bike lanes permanent.

7. Key success factors

For over two decades, plans had been afoot to implement dedicated cycle lanes on the Burrard Street Bridge, spurred by serious legal and safety concerns for cyclists and pedestrians, but also backed by an urban transportation policy framework in Vancouver that supported increasingly interventionist measures to prioritize cycling and walking over motor vehicle travel. And yet at successive moments, in 1996 and 2005, plans to trial dedicated cycle lanes on the bridge were rejected. Moreover, the implementation of on-street separated bicycle lanes was a consistently polarizing political issue that could significantly impact the electoral prospects of popular politicians. What was it about the particular political moment in Vancouver at the end of the 2000s and the plan articulated by Mayor Gregor Robertson that enabled him to succeed where his predecessors had failed?

At the broadest scale, there were a variety of contextual factors that coalesced in the late 2000s to create the underlying conditions supporting the reprioritization of investments in cycling infrastructure. These include rising use of cycling as a travel mode, changing local attitudes toward sustainable transportation spurred by decades of cycling activism; residential densification and gentrification of Vancouver's downtown; and an evolving planning and engineering culture at city hall that better embraced cycling as an important travel mode (Pucher et al., 2011).

Out of this increasingly favorable context, we identify four political actions that contributed to the successful implementation of the 2009 bike lane trial. These actions are: (a) the seizing of a unique political window of opportunity; (b) the trial's unique design, which limited the actual and perceived impact of the project; (c) an aggressive communication strategy to shape the media coverage of the bicycle lane project, and (d) political leadership and strategies concerning the framing of political discourse around available options.

8. Seizing a political window

> It is going to cost Vision votes. But it's with a group that I don't think would ever vote for Vision.
>
> —*Jim Green, Vancouver city councillor and Vision Vancouver mayoral candidate (personal communication, October 14, 2009).*

For two decades, the implementation of separated bicycle lanes on the Burrard Street Bridge was a contentious political issue in Vancouver, challenging the electability of the politicians who championed them. However, during the 2008 municipal election, Vision Vancouver contested this received wisdom, identifying a campaign promise to remove one vehicle lane from the Burrard Street Bridge and create separated bike lanes as part of a broader policy platform that would appeal to pragmatic, environmentally conscious voters. Clearly, this policy proposal was made within the context of the city's intensifying urban form, growth of transit and nonmotorized modes of travel in the city, and more favorable public attitudes toward cycling—trends that could enhance public support for separated bicycle lanes. Nevertheless, Vision Vancouver still viewed the Burrard Street Bridge bike lane proposal as a polarizing wedge issue that could galvanize their core constituency of voters but also those of the other parties, rather than an outright vote winner. As Am Johal, Vision Vancouver's 2008 election campaign policy chair explained in an interview, the strategic goal of supporting the Burrard Street Bridge bicycle lane trial was to "mobilize our base without getting blowback for it. And I think on that issue that we were able to do that" (A. Johal, personal communication, January 4, 2011)

Examining the internal opinion polling carried out by Vision Vancouver during the election campaign illustrates the potential implications of a strategy to use controversial bicycle lane projects as a wedge issue. As shown in Table 1, public opinion on Vision Vancouver's Burrard Street Bridge bicycle lane proposal was highly polarized, with 45% of those polled in support and 41% opposed. Half the poll respondents held strong views for or against the proposal. There was also a consistent partisan divide between proposal supporters and opponents. Of the 45% of respondents who said they agree with the

Table 1. Support for and against the Burrard Bike Lane.

Q: As you may have heard, Vision Vancouver has announced its policy for the Burrard Bridge. They propose closing one lane to car traffic in order to create larger and safer bike and pedestrian routes. There would be five car lanes instead of six on the Burrard Street Bridge. Do you . . .	Strongly agree	20.50%
	Somewhat agree	24.20%
	Somewhat disagree	11.50%
	Strongly disagree	29.20%
	Don't know/neither/refused	14.50%
	Total	100.00%

Source. 2008 Vision Vancouver internal election tracking polling.

one-lane trial (both strongly agree and somewhat agree), 62% stated they were planning to vote for Vision Vancouver's mayoral candidate Robertson. Only 22% of bike lane trial supporters were planning to vote for the NPA mayoral candidate Peter Ladner. As for the 41% opposed to the one-lane trial, 69% declared their intention to vote for Ladner compared to 27% who were planning to vote for Robertson.

These polling results provide evidence of the power of the separated bicycle lane project as a political wedge issue. The poll results show that the proposal to remove a vehicle lane in order to build bike lanes on the Burrard Street Bridge was not an obvious winning issue for Robertson and Vision Vancouver in the 2008 campaign. But it was also not likely to be a major vote loser for Vision due to the moderate approach they were taking (in supporting a single-lane trial, discussed below) and the political window in support for green initiatives that had presented itself through the mid-2000s. Rather the Burrard Street Bridge bicycle lane was a policy promise used strategically by the Vision Vancouver campaign to firm up support among the party's core constituencies and mobilize them to go to the polls and vote in municipal elections that had traditionally resulted in very low voter turnouts. Robertson and Vision Vancouver gambled that by sticking to a position closest to that promoted by environmentalists, they would gain from higher turnout from their supporters to a greater extent than the votes they might lose to the NPA as a result of their pro-bike lane stance.

Peter Ladner, who had previously voted against his own party in supporting the 1996 failed bike trial, was compelled by those within his own party to change his tune and oppose the trial: "I was kind of caught politically with the political base that didn't support it and an economist that didn't support it. . . . Sam [Sullivan, previous NPA leader and mayor of Vancouver] didn't support it. So that put me in a difficult spot" (P. Ladner, personal communication, December 15, 2010). Ladner admits that he had supported the first trial "because the arguments were pretty sound" but that he then had to backtrack: "The backlash was so suddenly huge and I had no future with the NPA base if I stuck with it. . . . There were some issues . . . not so much arguments, but rather the 'what are you thinking?' That kind of stuff. 'If you think that's going to work, you're so stupid, you're not my kind of person.' We're not talking policy here, we're talking gut level." (P. Ladner, personal communication, December 15, 2010). However, perhaps due to his more moderate feelings on the issue, Ladner could not articulate a logical opposition to the trial that convinced many of the undecided voters who may still have been on the fence. This presented Vision with a window of opportunity to strategically insert their own framing of the bike lane issue within the context of the 2008 campaign.

9. Design of the 2009 trial

> I think it was really smart. We supported it because of the pragmatics of the bottleneck effect of a two-lane trial. . . . I think it would have done our cause harm [to have] a two-lane trial.
>
> —*Margaret Mahan, Executive Director, Better Environmentally Sound Transportation (personal communication, December 10, 2010).*

The two and a half decades of debate on how to improve the safe travel of all modes of transportation over the Burrard Street Bridge often centered around contested visions of the physical design of a bike lane trial, and the symbolic imagery it connoted. Indeed, when implementing controversial projects, the physical design of the facility and the way that it functions is intimately linked with the cultivation of political and public support. As well, the design of on-street cycle lanes on the Burrard Street Bridge as relatively low-cost trials that can be removed if unsuccessful has been important in building support among politicians and stakeholders that may be ambivalent about the potential impacts.

A commonly held view among key stakeholders involved in bicycle lane planning in Vancouver was that the design of the 1996 trial and the public perception of the way it initially functioned were critical reasons why it was cancelled after one week. As articulated by Richard Campbell, a longtime cycling activist in the city, the "issue with [closing] the lane going into downtown is that [if] traffic backs up, it backs up over the bridge. So you get those iconic pictures on TV or on the front of the newspaper" (Figure 2). The 2005 trial that was approved but not implemented entailed the reallocation of two vehicle lanes to separated bike lanes, a design that removed even more road space from the bridge than the 1996 trial and invited strong criticism. Media reports speculated that removing two traffic lanes from the bridge would create even worse congestion and public frustration than the 1996 trial (Bramham, 2005; Ward, 2005). The NPA successfully used the two-lane trial proposal as a wedge issue of their own during the 2005 election, arguing that it would significantly impact their core base of supporters on the west side of Vancouver. Thus it became clear that a proposal seen as especially punitive to motorists, even if justified based on user safety and sustainable transportation benefits, would be politically unfeasible at this particular moment, due to the need to have drivers and the general public on board.

Recognizing how the design of the Burrard Street Bridge bicycle lanes could influence public opinion toward the project and its promoters, during the 2008 election campaign Robertson justified and articulated his commitment to a one-lane trial. Once elected Robertson recalls that he and his Vision Vancouver councillors "sat down with our traffic engineers [and] there was a lot of debate and no surefire solution before the trial as to what would work." Robertson's own perspective during this time was that it "was clear we had to be careful closing a lane going into the downtown in the morning because [of] the concentration of cars." This perspective began to coalesce among other key stakeholders involved in transportation planning in the city. The final approved trial called for a design that had never been proposed previously. As shown in Figure 3, it included: the closing of one southbound vehicle lane out of the downtown, the creation of a southbound separated bike lane in that reallocated vehicle lane, the closing of the northbound sidewalk to pedestrians and conversion to a northbound separated bike lane (with the erecting of a barricade between that bike lane and the vehicle traffic next to it), and last, the restriction of the northbound sidewalk to only pedestrians traveling in either direction.

This design was widely viewed as essential to the trial's success. By not closing a northbound lane into downtown there was no change to the morning traffic patterns and thereby no

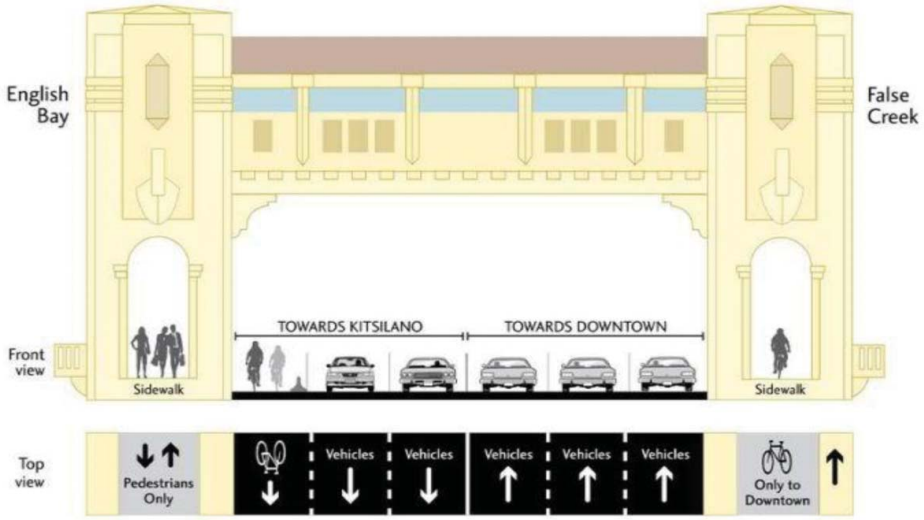

Figure 3. Design of 2009 Burrard Lane reallocation trial. *Source.* Advertisement run in the *Vancouver Courier* (City of Vancouver, 2009c, used with permission).

congestions at the very start of the trial. It is striking how consistently stakeholders identified the early imagery of the Burrard Street bicycle lane as central to the project's success. As Richard Campbell (personal communication, December 3, 2010) says, the selected design ensured the trial didn't have a "big bang to start off with. So it took a lot of the . . . wind out of the sails for people that were looking for a big story." Jim Green remembered one local radio station "had a remote studio at the bridge and you could hear them going, 'how is it now? Is it gridlock? No, actually, it's moving.' So it worked out beautifully and I have to give them 100% credit for that" (J. Green, personal communication, October 14, 2009). By surviving its first day without severe congestion and angry commuters, Robertson found that the 2009 trial was able to demonstrate that "five lanes of traffic are adequate on the bridge" (G. Robertson, personal communication, December 3, 2010).

10. Media coverage of the trial and the city's communications strategy

> There was a lot more diligence in planning done in regards to educating the public and informing the public about the trial.
>
> —*Charles Gauthier, Executive Director, Downtown Vancouver Business Association (personal communication, December 6, 2009)*

During the 1996 Burrard Street Bridge bicycle lane trial, initial media coverage of the project was overwhelmingly negative, and it was widely accepted by project planners and proponents that this contributed to the premature cancellation of the project. Against this backdrop, in the lead-up to the implementation of the 2009 trial, city staff and the political champions of the bicycle lane project took a far more proactive approach to communicating to the media the rationales, design features, and expected benefits of the bicycle lane plan. Importantly, cultivating positive media coverage was identified as not only having the potential to shape public opinion, but also influence short-term public usage of the facility, which could then impact the initial effectiveness and ultimately the long-term success of the project.

The City of Vancouver's communications strategy included a range of approaches such as "mass media advertising in print and on radio, banners placed on the bridge itself [Figure 4], signage, extensive information on the City's website, social media, and earned media opportunities (over 30 media interviews were done with City staff)" (City of Vancouver, 2009b). Focus groups and surveys were carried out to understand public awareness and attitudes toward the bicycle lane project, and identify strategies to minimize disruptiveness. Additionally, Vision Vancouver's elected officials commented in dozens of media stories on the bicycle lane project and Mayor Robertson wrote an editorial in Vancouver's newspaper, *The Province*. A key function of this communication was to ensure that the lane removal project did not become perceived as an explicit strategy to reduce car usage, which could galvanize opposition, and to this end much of the messaging focused on the safety benefits of the plan for all who use the bridge alongside sustainability benefits (Robertson, 2009).

By engaging in rigorous earned and paid media strategies, the city and its political leaders set out to inform Vancouverites

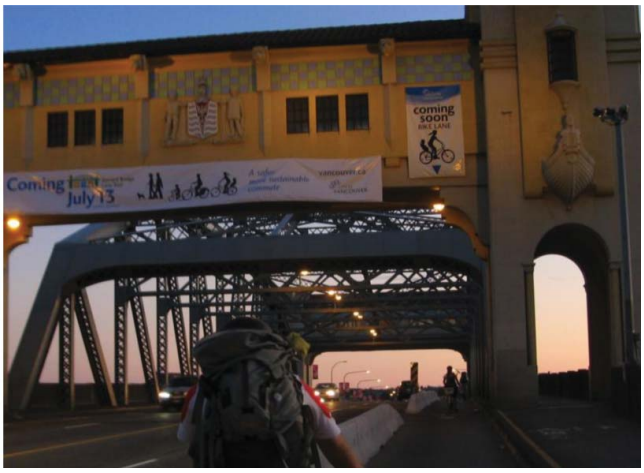

Figure 4. Banners on Burrard Street Bridge in lead up to, and during, the 2009 trial. *Source.* Photo by Steven Godfrey (used by permission).

when the trial was commencing, how it would work, how it could effect regular users of the Burrard Street Bridge, and alternative routes for drivers concerned that the trial would create traffic congestion. Effectively communicating to regular drivers on the bridge that they could take the adjacent bridges into the downtown core that were under capacity resulted in some initial traffic shifting (City of Vancouver, 2009b; Tebrake, 2009). This shifting of bridge usage at the very outset of the trial period played a role in ensuring that the launch did not result in the kind of congestion that occurred in 1996.

On the first day of the trial there was heavy attendance by media outlets on the bridge, many expecting to report on traffic congestion and angry commuter sentiment resulting from the reduction of road space and the installation of the bicycle lane. Instead, news stories reported that the trial was resulting in the smooth and safe commuting of all modes of transportation. As the Vancouver *Province* reported,

> [D]ay 1 of the Burrard Street Bridge bike-lane experiment unfolded smoothly yesterday, much to the delight of cyclists, pedestrians and Vancouver Mayor Gregor Robertson. Despite doom-and-gloom predictions of chaos after the closure of one southbound lane for cyclists, morning and afternoon rush-hour commutes went off without a hitch. (Chan, 2009)

The importance of this initial media coverage to the political success of the bicycle lane trial cannot be underestimated. As Gordon Price, the former NPA City Councillor who championed the 1996 trial explains, once the project was seen to be succeeding,

> this story no longer existed for them [the media]. Which is the best thing that could happen . . . the story goes away and the new norm is accepted as a given and the universe is reordered. And that's more or less what happened within hours of that experiment [in 2009]. Just as in '96 when it failed because [then] the universe did explode as far as traffic congestion, anger, and the media had all their shots. (G. Price, personal communication, December 2, 2010)

11. Political leadership, political will, and political capital

> It was hard. I give credit to the politicians who made that decision.
> —*David Rawsthorne, Lead City Planner, Burrard Street Bridge Bicycle Trial (personal communication, December 13, 2010)*

Political agency also plays a role in this story. Key individuals took it upon themselves to champion controversial projects within their own political parties and constituencies, articulate and defend the merits of the plan during general election campaigns, and expend political capital to support the implementation process. In a context where public opinion toward the Burrard Street Bridge bicycle lane policy was highly polarized and evenly split, sustained political commitment from high-profile politicians, particularly Mayor Robertson, contributed to the realization of the project. Robertson commented in an interview that before running for the Vision Vancouver mayoral nomination in 2008 he studied the conditions of cycling on the Burrard Street Bridge and past attempts to create bike lane trials on the bridge "before making a commitment to try again." Before expending considerable political capital on the project, he wanted to be confident that he "could actually make it work [by] … try[ing] to figure out what went wrong and why and how to not repeat" past trial failures and cancellations (G. Robertson, personal communication, December 3, 2010). Once convinced, Robertson made the decision to campaign for a trial one-lane reallocation in the hotly contested Vision Vancouver party nomination contest.

Robertson handily won the Vision Vancouver nomination with 51% of the vote, nearly 20 percentage points ahead of his nearest competitors (Rolfsen, 2008). This provided Robertson with considerable political capital, not only on council but in his own party, as there was still considerable debate within Vision Vancouver about the merits of his proposed one-lane trial. Am Johal recalls hearing comments following the election, such as, "you guys aren't really going to do that [one-lane trial]. I get that you are doing it in an election but you are not really going to do that, are you?" (A. Johal, personal communication, January 4, 2011). Similarly, newspaper columnists heaped warnings on the mayor about the political ramifications of his decision to support the reallocation of one lane on the Burrard Street Bridge to cyclists: "Sucking up to bicycling minority may cost the mayor his job" read one headline (Ferry, 2009). Robertson reflected that "within Vision there were the same entrenched positions that were more widely held" throughout the city, in particular opposition to bicycle lanes on the bridge. However, "the majority leaned toward doing something to solve the problem and [to] try [a] new way" (G. Robertson, personal communication, December 3, 2010). Robertson's success in the 2008 election gave him the political capital necessary to exert influence in proposing and defining what this "new way" would look like.

Robertson and Vision Vancouver councillors took special steps to ensure that city staff understood their commitment to pursue options for separated bike lanes on the Burrard Street Bridge. This was significant, because there has been a historical tension between the new policy agendas of incoming politicians, and the institutional memory and policy inertia of the permanent city staff in planning and engineering departments. According to Brent Granby, Director of the West End Residents Association, many in the cycling community "weren't really sure how strong Council were going to be on [the bike lane]. And then . . . they had Gil Penalosa [give] this barnburner of a presentation about why it is necessary to do physical separation" (B. Granby, personal communication, December 6, 2010). Granby remembers "speaking to people afterwards and they said that it was mostly for staff, to really buck up staff." Robertson and Vision Vancouver councillors pressed staff to closely examine the alternatives regarding possible one-lane reallocations. Robertson and his Vision Vancouver-dominated council were not rigid with what the trial should look like, but did insist staff stick to the parameter of removing only one traffic lane (D. Rowsthorne, personal communication, December 13, 2010). Robertson (2010) commented that prior to the election campaign "the one-lane trial wasn't really on the table [for planners and engineers]. . . . It wasn't an option that was being considered because no one knew how it would quite work."

At the same time, the conditions affecting the political will to move forward with the Burrard bike lane had changed since the previous elections. Key on this front was the significant

work that the previous electoral and media campaigns had accomplished in supporting the idea that "something had to be done." NPA mayoral candidate Peter Ladner made claim to being environmentally progressive, and advocated not for the status quo but for an alternative option (of extending the sidewalks, and barriers between them and the vehicle lanes). The competition between two seemingly environmental candidates reframed the debate away from a defensive position (having to justify doing anything) to a positive consideration of alternative solutions. The political agency of both leaders thus also helped ensure the political feasibility and success of the second trial. Ultimately such matters come down to politics, and much of the struggle involves how debates are framed within political discourses and how political capital is marshaled in support of seemingly technical decisions.

12. Conclusions

Cycling is increasingly recognized as important for improving the environmental sustainability of urban development patterns and providing for a diversity of benefits. The reallocation of road space to separated cycle lanes competes for the top of the list among cost-effective policy solutions. Yet, implementing new cycle lanes has been controversial, with new polarizing discourses about wars on cars and cyclists increasingly used to frame political debates. Even in cities where there is a general political consensus that expanding cycling infrastructure is an important strategy to increase travel by bicycle, as was the case in Vancouver by the mid-2000s and is becoming increasingly common across North America, proposed policy measures can differ widely across the political spectrum. On-street bicycle lane projects that involve the reallocation of existing road or sidewalk space to cyclists have the potential to be particularly polarizing.

Against this backdrop, an important insight of this paper is to recognize the interplay between the technical and political dimensions of implementing controversial infrastructure projects such as dedicated bicycle lanes. The Burrard Street Bridge bicycle lane trial case allows for interrogation of the political strategies that have been effective in overcoming opposition to on-street cycling facilities. A key to the ultimate success of the Burrard Street Bridge bicycle lanes was recognition that the technical design of the plan, and the imagery that it connotes, have political salience and can strongly influence public opinion toward the project. The design of the project also impacts strongly on the distribution of benefits and costs between the different road users. Therefore, developing a design that is acceptable (if not entirely preferred) by as many groups as possible is critical when developing the political constituency of support required to proceed with a controversial initiative. After two attempts, project champions and planners learned that first impressions matter, and that the design of the project and the communications surrounding its delivery have to be carefully managed to avoid overly negative public attention when it first opens. Bicycle lanes are also ideal for implementation first as pilot trial projects, due to their relatively low cost and ease of delivery, and this can favorably sway skeptical politicians and citizens.

At the same time, because bicycle lanes are visible, relatively simple, and easy to remove, they require a level of sustained commitment and leadership from top politicians in order to overcome inevitable challenges from stakeholders such as motorist groups, resident associations, the media, and skeptical city staff. The Vancouver experience shows that persistence among promoters and politicians, in the context of an undulating political landscape fashioning new windows of opportunity and shifting political discourses, can lead to successful projects in the face of strong opposition, even if it takes decades to realize implementation. The Burrard Bridge provides a case study for how bike lane proposals might pass political muster and facilitate the shift toward sustainable active transportation modes within the context of existing infrastructure built for cars.

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