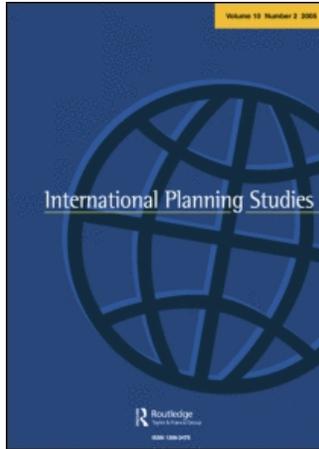


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Backtracking Auckland?: Technical and Communicative Reason in Metropolitan Transport Planning

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ABSTRACT Communicative planning has helped to illuminate the role of technical reason in planning processes. Transport planning has had little exposure to the communicative perspective. This paper examines transport planning in Auckland, New Zealand, from a communicative planning perspective. The paper argues that the historical dominance of technical reason has biased strategic transport policy towards supporting automobiles over more sustainable modes. The paper demonstrates the dominance of technical rationality in transport strategy-making processes and institutions in contrast to expressed public preferences. The paper concludes by arguing that the achievement of greater sustainability in Auckland's transport, and elsewhere, depends on a greater communicative emphasis in regional planning and transport strategy making.

Introduction: Communicative Planning and Transport

Meaningful public participation in urban planning remains an elusive goal despite decades of rhetorical commitment by decision-makers. The past decade has seen the emergence of 'communicative' conceptions of urban planning that seek to explain this phenomenon and develop alternative ways of acting that may overcome it. This paper seeks to apply communicative planning insights to recent transport planning practice.

Communicative planning recognizes that formal planning processes are characterized by unequal power relations and procedures of knowledge production and legitimization that favour some groups over others. These conditions can distort the expression of public preferences and produce outcomes that are contrary to public desires. Yiftachel and Huxley (2000: 910) suggest 'planning authorities and planners often act regressively exerting domination and causing inequalities in what has been called the "dark-side" of planning'. Communicative planning seeks to overcome such regressive distortions by identifying them when they occur and assisting the participants in planning decisions to recognize them (Forester, 1989; Healey, 1992; Fischer and Forester, 1993; Flyvbjerg, 1998).

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Rational technical planning processes have been subject to particular criticism from a communicative perspective. Many social theorists have demonstrated that systematic instrumental reason can produce social domination and control while simultaneously appearing legitimate, normal and neutral (Habermas, 1984). The use of abstract and opaque rational methods in decision-making has been identified as contributing to this problem. Some authors have argued that scientific and technical rationality is simply 'politics by other means' (Abram, 2005). Communicative planning seeks to open political and policy processes to greater public involvement, through procedures that permit the open expression of public desires and preferences and the removal of distorting influences (Forester, 1989; Healy, 1992).

While planning generally has received much attention from communicative theorists, there has been only limited attention given to transport planning. This lack of engagement seems curious, given the centrality of transport planning to the achievement of sustainable urban development through impacts on urban structure and form as well as the often high social, financial and environmental costs of transport projects.

Some authors have engaged with broader transport policies from a communicative perspective but so far have not produced anything like a comprehensive critique of transport planning processes. Willson (2001) has suggested that transport planning has concentrated on instrumental rationality which focuses on the identification of desired ends and optimization of means without recognizing that these are often highly contested and political practices. Langmyhr (2001) has argued in favour of assessing both the instrumental and communicative rationality in the selection of alternative transport 'packages'. Willson et al. (2003) suggest that a process of decision-making concerning parking provision at stations on San Francisco's BART rail system was enhanced by planners' attentiveness to the communicative dimension of the planning process.

Vigar (2002) has proposed a discourse-based approach to understanding transport policy-making, drawing on Hajer's (1995) notion of 'storylines' in planning. While a useful contribution to this understanding of transport planning processes, Vigar's work focuses on the content of policy decisions – 'discourses' – as the object of analysis rather than the process by which particular modes and methods of policy judgement, such as technical reason, are valorized, legitimated and made dominant over others.

Perhaps the most significant contribution to the comprehension of the communicative dimensions of transport planning processes comes from Bent Flyvbjerg's various works (with others) on transport megaprojects and traffic analysis. Flyvbjerg et al. (2003) suggest that there is an inherent tendency for 'strategic misrepresentation' by consultants, officials and decision makers in the selection of major transport projects, with flawed technical assessments resulting in unmeritorious projects receiving political support and public funding. They argue that the technical process of transport planning can misinform and thus distort public preferences and involves the subordination of communicative rationality by instrumental rationality.

Flyvbjerg et al. (2006) have recently demonstrated that the apparently rational and objective technical procedures of traffic forecasting are fraught with error, bias and occasionally outright lies, which can distort the predicted performance of various transport policy options to the detriment of eventual public outcomes. The various Flyvbjerg studies demonstrate the risks that arise from rational technical instrumentalism dominating open public debate in transport planning. Flyvbjerg's suggested antidote to these problems is for the supplanting of 'technical reason' with 'communicative public reason' in transport decision-making.

The Flyvbjerg studies were based on large sample investigations of transport projects. Flyvbjerg (2001) has elsewhere argued persuasively in favour of the detailed empirical case study as a methodology for social scientific enquiry. Yet there are few examples in the transport planning literature where the relationship between technical rationality and communicative public rationality in strategic, rather than project-specific, decision-making processes has been empirically and critically assessed in this way. We are not aware of any case studies that have sought to comprehend the relative influences of instrumental and communicative rationality in the pursuit of sustainable transport policies at the metropolitan scale. A well-selected and suitably detailed case study (e.g. Flyvbjerg, 1998) therefore offers significant opportunity to explore and comprehend general processes of technical dominance in transport planning.

This paper presents a case study of recent attempts to change transport planning in the city of Auckland, New Zealand. The case study demonstrates how technical processes of transport evaluation and assessment can directly distort, rather than support, the achievement of public preferences and transport sustainability in metropolitan plans. Auckland provides an excellent example of the problem, because it involves a clear example of strongly expressed public preferences in the area of transport being distorted and diverted by opaque technical assessment and bureaucratic control for half a century. Auckland's particular history of automobile-dependent urbanization makes the city an excellent candidate for exploring the relationship between technical rationality and the achievement of transport sustainability. The sustainability imperative is more pressing in Auckland than many comparable cities, yet attempts to transform Auckland's transport have so far proved largely fruitless.

Auckland: '100 Per Cent Pure Automobility'?

New Zealand's largest city is also one of the world's most car-dependent; conversely, public transport usage rates are among the lowest in the world. The irony of this situation, in a country that markets its 'green' image to tourists as '100 per cent pure New Zealand', is not lost on the region's 1.3 million residents, who for over a decade have expressed strong dissatisfaction with traffic congestion and the absence of a viable public transport alternative.

Various explanations have been offered by regional and national transport policy makers for this situation, including lack of funds for new infrastructure, low population densities, the popularity of the car and inappropriate institutional arrangements for transport service delivery. We contend, however, that these explanations have masked a more important factor, which is that Auckland's transport policy-makers themselves have pursued one of the most extreme automobile-oriented transport policies in the world, beginning in the 1950s, but continuing to the present day.

Since the late 1990s, elected officials in Auckland have attempted to re-balance transport policies, and the ensuing policy documents have promised a greater role for public transport. This new rhetoric is largely a response to strong public support for a new transport policy direction. But the substantive policies pursued have remained dominated by motorways despite the changed rhetoric. We argue that the attempts to reverse car dependence in Auckland have failed because the region's transport planners continue to employ policies and processes that promote road capacity expansion over investment in other modes. This bias, which appears to be only partly deliberate, is a result of a strong pro-automobile mind-set collectively held over decades by Auckland's transport planners, and of similar national mind-sets that are expressed through New Zealand's institutional framework for

transport planning and funding. We further argue that the technical assessment procedures followed by Auckland's transport officials have served to disguise these biases.

Our investigation of Auckland adds an extreme case study to recent international scholarship that has examined the extent to which institutionalized processes and mind-sets can distort the articulation of public preferences in strategic transport plans. Communicative planning posits that policy directions and options should be publicly deliberated rather than left to obscure technical analysis, but in Auckland we contend that the opposite has occurred. The recent attempts to reconfigure urban transport planning around conceptions of sustainability have simply reproduced the kind of auto-dominated transport plans that have been pursued since the 1950s, albeit with 'greener' rhetoric.

This paper attempts to explain why this has occurred. Why do Auckland's regional transport planning policies perpetuate the failed road strategies of the past? Why are the region's elected representatives and its planning officials unable to translate overwhelming public support for an improved public transport system into substantive programmatic change? And do national transport planning frameworks support or hinder the achievement of sustainable transport planning in Auckland?

Arriving at Car Dependence: The 1950s

To understand Auckland's contemporary context we must first review the city's transport planning history. The first Auckland master transportation plan was prepared in 1955. At this time, public transport use was comparable to, or higher than, rates found in Australian and Canadian cities, and considerably higher than US cities. Some 58 per cent of motorized trips were by public transport; 42 per cent by car, with around 290 unlinked public transport trips per capita (Mees & Dodson, 2002). By comparison, Toronto recorded some 292 annual trips at this time (Mees, 2000: 178). Auckland's decline in per capita public transport use over this period, from 290 to only 41 trips, was possibly the steepest fall of any city in the world.

In 2005, the Auckland Regional Transport Authority (ARTA) published a comparative table of public transport usage rates (Figure 1), showing Auckland as the worst performer among Australian, Canadian and selected US cities. In fact, Auckland's comparative performance is even worse than the table suggests, because the contemporary North American figures are for 'linked' trips, in which transfers are not counted: thus, the Vancouver figure in the table should actually be 107 trips, not 62, while the Toronto figure should be 255 instead of 150.

Low patronage is particularly apparent on Auckland's three-line diesel-powered suburban rail system, which as recently as 2000 carried only two million passengers annually, or around 7,000 on a normal weekday. While other Australasian cities – Brisbane, Perth and Wellington – have electrified and extended similar rail systems, Auckland has debated doing so for half a century without making progress, a situation nicely illustrated by the fact that the current service is operated largely with second-hand diesel railcars discarded by Perth in the early 1990s.

Yet in 1950, a comprehensive plan was prepared to electrify and upgrade the Auckland rail system, following on from a similar project carried out in Wellington from 1937 to 1955 (Harris, 2005). The rail scheme was prepared by British consultants Halcrow & Partners at the request of Auckland's regional planning authority, and included a tunnel to extend the rail system through the central business district from the main terminal

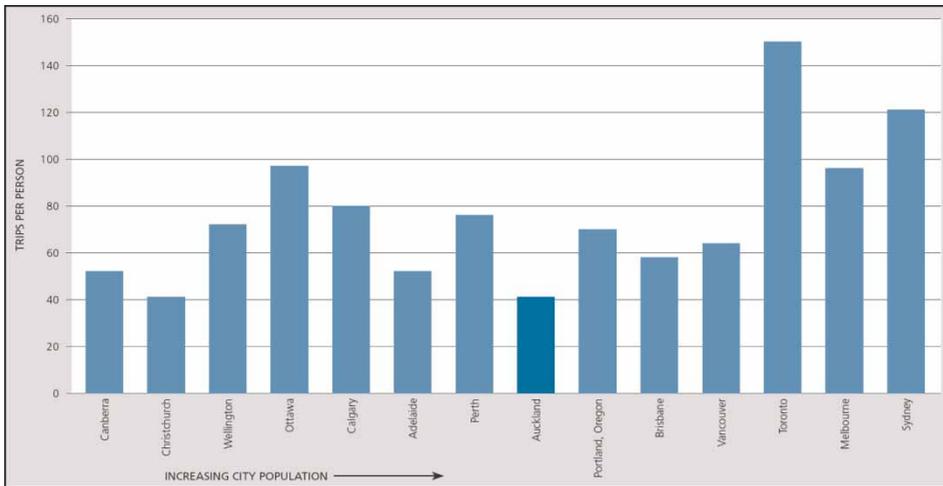


Figure 1. Public transport trips (per capita) in selected cities. *Source:* ARTA (2005a: 10)

station, which was inconveniently located, plus a restructuring of bus routes to provide feeders to the rail system.

In 1955, the rail plan was abandoned by the regional body, then known as the Auckland Regional Planning Authority (ARPA), which successfully requested the national government to spend the funds instead on a motorway network. This critical turning-point in transport policy has been examined by a number of authors (Bush, 1971; Gunder, 2002; Mees & Dodson, 2002; Harris, 2005), who have pointed to a range of factors, including the popularity of American ideas, the influence of road engineers and pro-motorway academics (notably Professor K.B. Cumberland, head of geography at the University of Auckland from 1946 to 1980) and the national government's road agency. We do not propose to repeat these analyses, but instead to highlight the 'communicative' dimension of the way the rail-versus-motorways dispute was resolved.

A significant conclusion emerging from this recent scholarship is that the decision to cancel the rail upgrade was extremely unpopular with the general public, and that transport planning officials responded to this by characterizing the question as a technical one that had to be reserved to 'experts'. This was achieved through a suggestion from the Auckland City Council Chief Engineer that the question be referred to the ARPA, which in turn appointed a 'technical advisory committee' dominated by road engineers to prepare a master transportation plan. The decision to refer the question to the ARPA was made only weeks before the national election of 1954, and as the *Auckland Star* newspaper reported, this was not a coincidence: 'The Government does not want the underground to become an election issue, on the ground that this would lead to confusion over *what is essentially a technical problem* (cited in Harris, 2005: 45; emphasis added).

The master transportation plan produced by the technical committee was released after the election, and is anything but a dispassionate 'technical' document: even after half a century, the breathless shrillness of its anti-rail polemic makes striking reading:

[R]oad development must have first claim on the limited resources of manpower, materials, and finance. (This is borne out by experience and conditions all over

the World; after the USA, New Zealand has the highest ratio of motor vehicles to population and is following the USA in traffic and transport trends and it is to be noted that in the whole of the USA there is not one city comparable with Auckland which has mass passenger rail facilities, and in that country there are three cities only which have such mass transit facilities – New York (8,000,000), Chicago (3,500,000), Philadelphia (2,000,000). (ARPA, 1956: 31).

The main ‘technical’ argument presented to justify abandonment of the rail upgrade was the dispersed nature of urban development in Auckland: ‘The form and structure of Metropolitan Auckland through the years has been largely determined by developments in . . . transportation. During the last 25 years, the overall effect of motor transportation has so radically changed the pattern that Auckland is now one of the most dispersed cities in the World.’ (ARPA, 1956: 5). In support of this argument, a table of comparative urban density figures was given, showing Auckland’s density as much lower than that of cities such as Paris, New York and Sydney (p. 31). But the source cited for the figures is an Australian book titled *X-Ray the City!*, by Dr Ernest Fooks, with the figures taken from a table that Fooks introduced with the statement: ‘The artificial nature of legal and administrative urban boundaries makes overall density figures meaningless. A study of the two accompanying tables make this clear.’ (Fooks, 1946: 48). Fooks also stated that such figures ‘cannot be used for comparative purposes’ (p. 48) and referred to ‘the many biased conclusions deduced from such figures’ (p. 55)!

Rather than an objective technical assessment, or a simple mistake, the misuse of Fooks’s figures appears to have been an outright lie (cf. Flyvbjerg et al., 2003; Flyvbjerg et al., 2006). Fooks’s table showed Vienna and Nanking as having lower densities than Melbourne and Sydney (thus illustrating Fooks’s point about the unreliability of the figures), but the table in the Auckland Master Plan removed all the cities that appeared to have similarly low densities to Auckland, retaining only those with higher scores. And as Harris (2005: 47) points out, only a few years earlier, the ARPA had published calculations of Auckland’s urban density based on the more rigorous methodology recommended by Fooks, and had arrived at a figure approximately four times higher than the one used in the Master Transportation Plan. This earlier technical assessment was deliberately omitted.

The master plan achieved its intended result by taking the choice about transport priorities away from the New Zealand public and handing the decision to unelected officials. The communicative dimensions of transport planning were thus subordinated at this critical juncture, with technical reason the determining force thereon. The rail scheme was ‘postponed’ in favour of a massive programme of motorway construction, which saw Auckland acquire a more complete motorway network, and at an earlier date, than any comparable Australasian city. Sydney, Melbourne and Brisbane, for example, did not begin large-scale motorway building until around 1970, by which time the Auckland motorways proposed in the master plan were largely complete. The early encouragement of private motor vehicle use via Auckland’s motorway expansion also precipitated an earlier and more severe collapse in public transport patronage than the other cities.

Entrenching Car Dependence and Blaming the Public

In 1963, the American firm De Leuw Cather & Co was appointed to update the 1955 master plan. Auckland’s population was growing more quickly than predicted in the

1950s, and traffic levels were rising much more rapidly than the original motorway plans had anticipated, thanks largely to feedback effects from the collapse of public transport caused by the original schemes. The Auckland City Council was also concerned about a collapse of central business district retailing, a phenomenon not seen in other Australasian cities (and in our view also attributable to the transport decisions taken in the 1950s).

While De Leuw Cather (1965) recommended additional motorways, they also revived the rail proposals rejected by the 1955 master plan – even American consultants were less dismissive of public transport than Auckland’s transport officials (Mees & Dodson, 2002). The rapid transit proposal was pursued in a celebrated campaign by Sir Dove-Meyer Robinson, who served as Auckland’s mayor for all but three of the years from 1959 to 1980. But ‘Robbie’s rapid rail’ scheme was refused funding by the national government, following the release in 1976 of a review of the De Leuw Cather reports by the Auckland Regional Authority (ARA), which had replaced the ARPA. The 1976 report (ARA, 1976), prepared by a technical advisory committee of similar composition to that responsible for the 1955 master plan, supported all the motorways proposed by De Leuw Cather, but opposed the rail upgrade. By the early 1980s, ARC officials were seriously proposing closing Auckland’s rail system altogether, but were defeated by public opposition (ARA, 1983; Mees & Dodson, 2002).

The Auckland Regional Authority’s next major transport policy statement, in 1987, reaffirmed the emphasis on motorways (which were restyled as ‘corridors’ in an apparent attempt to appease environmental concerns), and paid even less attention to public transport. By this time, however, a new rhetorical tactic had emerged: instead of openly taking responsibility for the automobile orientation of transport policy, as had occurred in previous plans, transport planners were now blaming the *public* for the dominance of the car and using this as justification for further road expansion. The 1987 plan referred to the ‘need for a change in attitude of society’ towards cars (ARA, 1987: 32).

‘Sustainability’ Comes to New Zealand Transport Planning

By the mid-1990s, Auckland’s extensive motorways and residual public transport were again the focus of national and policy attention as the new Resource Management Act 1991 brought a fresh emphasis on sustainability. Local government changes had reconstituted Auckland’s Regional Authority into the Auckland Regional Council (ARC), with responsibility for addressing regional sustainability issues. Strong population growth in the mid-1990s put pressure on regional infrastructure and stimulated the region’s local governments to produce a regional growth strategy (RGS) (Regional Growth Forum, 1999). This RGS recommended a ‘transit-oriented’ pattern of development to combat automobile dependence.

The new Land Transport Act 1998 required the country’s regional governments to regularly prepare and update a regional land transport strategy (RLTS) to complement their land-use plans. During 1998 and 1999 the ARC began drafting a regional land transport strategy to complement the new RGS, relying heavily on technical transport modelling (Ashley et al., 1999).

The RLTS consultations revealed strong public support for improvements to the region’s public transport. But the technical modelling and contents of the eventual plan reflected the strong post-1950s road bias by effectively reproducing the incomplete 1965 and 1976 motorway schemes as the main projects to be achieved (Mees &

Dodson, 2002: 295). The transport planners were aware of the communicative dimensions of the policy development process as the following example demonstrates. The 1998 draft of the RLTS had stated that ‘analysis has shown that heavy investment in passenger transport is not likely to increase the overall proportion of people using passenger transport because of the dispersed nature of trips in ... Auckland. ... Most ... investment will be in roading’ (ARC, 1998: 29, 8).

The road bias of the draft strategy was strongly criticized by community groups. So the planners modified their rhetoric for the final plan: ‘The most significant change proposed by this strategy is an increase in passenger transport investment’ (ARC, 1999: 16). But the road and public transport projects in the final report were basically the same as those in the draft – only the rhetoric had changed (Mees & Dodson, 2002).

The Central Government Turns ‘Green’

A Labour national government was elected in 1999 after nine years of conservative National Party rule, during which Auckland’s transport issues were largely ignored by the central state. Labour initially seemed to support Auckland’s public transport improvements and in 2002 funded an NZ\$81 million buy-back of the region’s rail rights of way that National had privatized (for NZ \$1) in 1993. But previous transport neglect meant that Labour remained vulnerable to pressure from the road lobby in the 2002 national elections, especially after the election of John Banks as Auckland Mayor (see below).

Since the 1950s, roads in New Zealand were financed by hypothecation of fuel excise and road user charges into a National Roads Fund, which was disbursed by the National Roads Board (1953–89) and its successor agencies Transit New Zealand (1989–96) and Transfund (1996–2002). These arrangements, which were intended to prevent pork-barrelling, are unusual internationally (Heggie et al., 1999) and have created a strong bureaucratic bias towards road construction.

The cost of Auckland’s 1999 motorway and public transport plans exceeded national petrol excise revenue at the time. Labour responded to business and political pressure in 2002 with a new spending package that provided a further \$94 million for Auckland’s roads with \$30 million for public transport services, funded by increased fuel excise (Gosche, 2002).

Labour was re-elected in 2002 but was dependent on Green Party support. The Greens demanded changes to national transport policies to give greater emphasis to sustainability principles. Labour responded by reconstituting Transfund as Land Transport New Zealand (LTNZ). The Ministry of Transport was required to prepare a New Zealand transport strategy (NZTS) using new sustainability criteria to guide LTNZ in its funding disbursements (Ministry of Transport, 2002). But the new arrangements changed nothing, as subsequent experience in Auckland demonstrates.

The release of the 2002 New Zealand Transport Strategy simulated a review of the 1999 Auckland Regional Land Transport Strategy, to align the regional scheme with the new superior national policy. Since 1999, ARC officials had been costing the infrastructure projects specified in the RLTS. The anticipated costs had increased significantly (ARC, 2002) with road projects accounting for the vast majority of these expenses. In the draft 2002 RLTS only 28.7 per cent (\$1209 million) of the total \$4216 million transport expenditure was for public transport and the final version of the strategy (ARC, 2003) reflected this pattern.

The 2003 RLTS thus perpetuated the dominant role of major roads in Auckland's transport planning. But projected national fuel excise revenue remained insufficient to fund these projects, especially the desired completion of the motorway network first set out in the 1955 plans. Proposals for private funding were floated, but did not prove promising. Regional pressure on the national government increased, fostered by a well-funded business lobby that promoted investment in motorways. In the absence of clearly articulated public opposition to the 'roads before rail' campaign, central government was under pressure to respond.

Labour reacted by establishing a 'joint officials group' (JOG) comprising national and regional government transport bureaucrats to develop a funding plan to achieve 'network completion' within ten years. Most of these officials were drawn from central government, with only the ARC and one of the region's seven local governments – Auckland City – represented in the JOG process. Thus the JOG was dominated by unelected central government officials, while only one of Auckland's local authorities, who arguably had a greater regional mandate, was represented.

The JOG was instructed to base its planning on the 2003 RLTS, which emphasized roads with some public transport projects. Yet the JOG gave roads a much stronger emphasis than the regional scheme: 'Increased levels of travel demand management and public transport are essential . . . but are not the solution on their own. . . . An acceleration in road construction above currently programmed activity is needed' (Joint Officials Group, 2003: 3).

The JOG process became a means of again accelerating road construction over public transport improvements, echoing the 1954 'technical advisory committee', which had set Auckland down its auto-dependent path. Central government concerns rather than regional preferences appeared to be driving the JOG process. Hence the JOG report reflected the central bureaucracy's long-standing desire to see road pricing adopted in Auckland (see Minister of Transport, 1997; Ministry of Transport, 2006a), ironically by using capacity expansion as an incentive: 'Acceleration of the roading program will promote community acceptance of new funding programs' (Joint Officials Group, 2003: 33). The political outcome of the JOG process was a further funding package titled 'Investing for Growth', which provided Auckland with an extra \$1.62 billion from increased fuel excise and road user charges, to achieve (motorway) 'network completion' by 2016.

'Investing for Growth' also established a new Auckland Regional Transport Authority (ARTA) which took over the ARC's transport planning functions. ARTA's role is to plan for provide for public transport services and local roads while bringing a new level of accountability. Institutional impediments were cited by the local government minister as the main barrier to progress: 'I believe that Aucklanders will be relieved that central government is helping sort out the baffling lines of responsibility and accountability which have hampered progress to date' (Carter, 2003).

This paper contends that it is not bureaucratic complexity that has prevented the introduction of the policy changes desired by the public, but instead ongoing bureaucratic resistance and obfuscation. Indeed, public engagement was deliberately absent from the JOG process: the group's activities were undertaken as a bureaucratic exercise operating from within central government, further emphasizing the dominance of technical and bureaucratic over communicative public rationality. The JOG outcomes contrasted markedly with the dramatic expression of public preferences in the 2004 Auckland local government elections, which are described next.

Auckland's Motorway Revolt

Auckland's mayor, former National minister and populist radio 'shock jock' John Banks, was elected in 2001 on a platform of solving Auckland's transport problems, aided by public dissatisfaction with the incumbent mayor. A pro-road council was elected along with the mayor, and advocated the 'completion' of the Auckland motorway network. The mayor's cornerstone project was the Eastern Motorway, a road scheme from the 1965 plan that had been resurrected in the 1999 RLTS. The Eastern Motorway plan drew substantial support both from business lobbyists in the form of the Roads Before Rail Trust (Orsman, 2002a) and the *New Zealand Herald*, which demanded immediate construction (*New Zealand Herald*, 2004a). As technical assessments progressed, the costs of the motorway escalated, from \$495 million in 2002 (Orsman, 2002b) to \$1.2 billion by 2004 (Dearnaley, 2004a).

The Eastern Motorway plans generated heavy local opposition both among the wealthy residents of Auckland's eastern suburbs, who found their homes in the motorway's path. A 'Stop the Eastern Motorway' (STEM) group was formed, which promoted public transport, including the upgrading of the rail network, as an alternative to the road scheme. Mayor Banks staked his 2004 re-election campaign on the Eastern Motorway and described opponents as 'small in number and centred mainly on a few selfish, vested-interest property owners' (*New Zealand Herald*, 2004a). STEM responded by endorsing anti-motorway candidates in the 2004 Auckland City Council elections.

The 2004 Auckland local government elections offered a rare political opportunity to test public preferences for transport alternatives in the face of substantial political, media and official promotion of motorways. The result revealed the contrast between the technical rationality of transport planning and the communicative rationality of public desires.

This contrast was emphasized by two region-wide opinion surveys conducted before the 2004 elections and which signalled the eventual electoral outcomes. The first opinion poll was commissioned by STEM from an independent agency and found that 64 per cent of residents supported improved rail while only 25 per cent preferred a motorway (Orsman, 2004). An Auckland-wide survey by the *New Zealand Herald* found even greater opposition to motorways than the STEM poll: 77 per cent of the electorate considered transport the region's most pressing problem, but only 22 per cent supported more roads, while 67 per cent wanted better public transport (Dearnaley, 2004b). The newspaper nonetheless cautioned the politicians against the public view:

to provide the public transport network that most residents say they desire would cost much more than the same residents might be willing or able to finance. There are votes to be lost in the long run by imposing a vastly greater burden on rate-payers for an amenity that might not after all entice many Aucklanders to give up the convenience, privacy, enjoyment and independence of the personal car. (*New Zealand Herald*, 2004b).

The election results emphatically verified the public view suggested by the opinion polls: Mayor Banks was defeated and the election of STEM's anti-motorway candidates gave the Auckland City Council its first centre-left majority for 70 years. A similar

pro-public transport majority was also elected to the Auckland Regional Council (*New Zealand Herald*, 2004c). In an interview after the election the outgoing mayor attributed his defeat to public opposition to the Eastern Motorway. Auckland, it seemed, had experienced a 'freeway revolt' of the type found in British, Australian and North American cities during earlier decades (Hall, 2002). Communicative action, it seemed, had finally overtaken technical reason.

The public mandate expressed in the 2004 elections provided Auckland with an unprecedented opportunity to change transport priorities. In early 2004 the ARC had begun developing a new regional transport strategy in response to the creation of ARTA and the 'Investing for Growth' package. Given the impressive public support for a change in transport policy direction, the subsequent 2005 RLTS might have been expected to reflect public preferences, but this expected shift did not eventuate. The remainder of this paper therefore examines the 2005 Auckland Regional Transport Strategy in detail to assess how the bias in favour of motorways and against public transport has remained embedded in the thinking of Auckland's transport planners and political leaders. This final aspect of the case study demonstrates the extent to which a planning process can remain dominated by technical rationality that obscures and frustrates clearly expressed public preferences, including those determined through repeated procedures of communicative reason.

Auckland's 2005 Regional Land Transport Strategy: Consultation About Nothing?

Auckland is now one of the most dispersed cities in the world. The individual has been freed from absolute dependence on the tramways and the railways with their fixed routes. . . . The pattern of travel has become more diffuse . . . after the USA, New Zealand has the highest ratio of motor vehicles to population (ARPA, 1956: 5, 31).

The region has developed as a relatively low density, decentralised region. Travel in the region is characterised by large numbers of dispersed journeys. The region's dispersed land uses and trip making have been enabled to a large extent by car ownership, which is one of the highest in the world. . . . Cars will remain the most predominate [*sic*] travel mode. . . . Cars give most Aucklanders a wide choice of living and work locations. (ARC, 2005a: 45).

The first indication ordinary Auckland residents had of a new regional land transport strategy came in the form of a lavish consultation brochure released by the regional council in June 2005, which introduced the draft 2005 RLTS. The brochure set out six possible options for the future of transport in the region, describing one (no. 5) as the 'preferred way forward'. The six options were presented as spending packages (e.g. 'Option 5: spending on public transport increases to \$3750 million allowing significant improvements to bus and ferry services as well as rail improvements') together with statements about their impacts (e.g. 'as a result: significantly increased public transport use and choice'). Although expenditure levels were specified in the brochure, very little information was given about what exactly the money would be spent on, what the outcomes would be or what the assumptions used for assessing the outcomes were.

Despite the brochure's high production values, the package-based approach was fundamentally flawed as an exercise in public consultation. Because individual projects were subsumed into general funding 'options' no citizen of Auckland could possibly know what she or he was actually 'voting for' by choosing any of the options. The justification set out in the consultation brochure for this mystifying approach was an interpretation of the Local Government (Auckland) Amendment Act 2004 that had established the Auckland Regional Transport Authority. It is worth understanding the origins and implications of this legislation for the consultation process undertaken for the 2005 RLTS. Section 36 of the act stated that Auckland's RLTS must not 'include reference to activities or their prioritization' or 'include any regional [public] transport plan'. What was this strangely-worded legislation supposed to mean? Here is the Delphic answer given by the politician responsible for the final drafting of section 36, the co-leader of the New Zealand Greens:

There has been a lot of confusion about what this actually means, and some people criticized the bill as introduced for not allowing the regional land transport committee to get its teeth into any issues at all. That was never the intention, but I am glad that the wording has been clarified . . . so that it is now clear that the regional land transport strategy can and should look at modes and prioritize those. It should look at corridors and the needs on the corridors, but it should be more of a structure plan than a wish list of activities. (Jeanette Fitzsimons MP, New Zealand Parliament, in committee, 30 June 2004).

But the 2005 RLTS consultation process did not allow the public to 'prioritize' modes at all; rather, it presented the public with a 'choice' between largely incomprehensible 'options'. Members of the committee told us that ARC officials advised them that the legislation required this approach, but this advice was clearly incorrect. The fact that more precision was permitted is eloquently attested by the very specific 'Future Strategic Road Network' shown in the draft and final RLTS reports (ARC, 2005a; ARC, 2005b: 80, map 7.2), but not referred to at all in the consultation brochure. This network contains the full list of motorways from previous plans, including the Eastern Motorway. By contrast, even in the final 2005 RLTS, public transport gets merely an 'Indicative Rapid Transit Network', much of which is shown with the even vaguer designation 'Future Potential . . . System' (ARC, 2005b: 91; map 7.4). It seems that even the legislative framework under which the RLTS was conducted was subject to biased interpretation by transport officials without recourse to public validation.

The result of this process was that instead of allowing the public to 'prioritize' between, say, the Eastern Motorway and a rapid rail system of the type proposed since the 1940s, Auckland's transport planners made the decision for them. They re-incorporated the publicly rejected Eastern Motorway into the strategy without giving the public a chance to vote *against* it, yet omitted the rail upgrade option without allowing the public to vote *in favour* of it. Given the emphatic October 2004 election result described above, the ARC's consultation approach produced exactly the opposite outcome to that which would have occurred if the RLTS planning had allowed the public to communicate its preferences without the distortions produced by the way in which the technical material was presented.

Technical Choices and Modelling Bias

The unwavering technical rationality that favours motorways and the seemingly predetermined nature of Auckland's transport planning processes is emphasized by the fact that the ARC staff did undertake quite detailed evaluations of specific road and public transport proposals to cost the various options and their likely effects. These options were tested internally through a series of internal ARC technical reports that were referenced only as footnotes in the RLTS drafts and were accessible only by specific request to the ARC. The mundane 'technical' ascription acted to deflect the significance of their content as the actual basis for many of the decisions made in the 2005 RLTS.

All six of the options involved spending more money on roads than on public transport: even the 'high public transport' options (5 and 6) involved spending twice as much on roads as on transit. Only a further 'extreme public transport option', which was developed and tested privately, involved spending comparable amounts on roads and public transport (ARC, 2005c: 4, table 4; 6, figure 4) but this was never released to the public. The idea of spending more on public transport than roads – a stance which is bipartisan policy in cities such as Perth, Vancouver and Portland – was so radical that it could not be evaluated even as an unpublished 'extreme' scenario!

This deliberate exclusion of strong public transport options in the 2005 RLTS seems even more surprising given that the ARC had drawn up its own detailed public transport plan back in 2003. This plan had been endorsed by the newly-created ARTA in 2005, some three months before the 2005 RLTS was released. This *High Quality Rail Rapid Transit Option for Auckland* (ARTA, 2005b) was not included among any of the six options. Even the unreleased 'extreme public transport option' featured a less extensive rail network, and lower service frequencies, than ARTA's rapid transit proposal (ARC, 2005c: 3; cf. ARTA, 2005a: 17 [network]; and ARTA, 2005b: 45 [frequencies]).

Additional pro-road bias was embodied in the technical 'criteria and measures' chosen to evaluate the six options, as set out in *Technical Paper 3* (ARC, 2005d). Although 24 separate criteria were nominated, covering issues ranging from the economy to the environment, the criteria at the head of the list (esp. nos. 1, 2, 3, 4 and 5) directly or indirectly emphasized the speed of travel and the number of lanes on major motorways. Emphasizing motor vehicle speed (as opposed to time spent travelling) and using a travel demand model that did not allow for 'induced demand' created by motorway expansion (see discussion below) guaranteed that the more motorways included in an option, the better its performance would be (and vice versa). This approach effectively prevented the modelling of scenarios in which slower motor vehicle speeds were compensated for by shorter journeys and/or transfers to public transport.

Further bias was incorporated into the RLTS assessment by the ARC's transport planning model. Not only is this model out of date (e.g. Rudman, 2005) but it also contains biases that favour roads over public transport. The model's 'fixed trip matrix' assumes that travel in Auckland is determined by demographic and activity factors such as population and employment but not by traffic congestion or transport infrastructure investment. Hence the model assumes, and thus 'predicts', not only that congestion will not affect trip making but also that provision of new high-speed motorways will not encourage further automobile travel. Such assumptions have not been accepted by transport planners for more than a decade and bias the model in favour of motorways (Luk & Chung, 1997).

The Auckland transport model is also technically biased against rail because it imposes large ‘transfer penalties’ within the mode split assessment component. In a medium density city like Auckland effective public transport requires buses to feed the rail network (as exemplified by the case of Vancouver). Yet the model’s technical bias against transfers leads it to ‘predict’ that the rail investment evaluated would not significantly improve public transport usage. Thus even the ‘extreme’ public transport scenario performed ‘surprisingly poorly’ (ARC, 2005c: 5) in the technical analysis. Similar modelling predictions have been proven false in other jurisdictions. Officials opposed Perth’s Northern Suburbs line, predicting it would be a failure when it opened in 1988, yet it carried many more passengers than predicted. A review of the Perth model concluded that ‘Many assumptions of [the] model . . . are in direct conflict with extensive experiences in other cities. . . . These assumptions heavily distort the calculations’ (Newman et al., 1988: 16–17).

Perth overcame passenger resistance to transferring almost two decades ago through high-quality interchange design, integrated bus and rail timetables and free transfers between services. Yet the Auckland RLTS model excluded consideration of such measures. In Perth, communicative rationality had in fact prevailed over a biased technical rationality that could not perceive potential transport options beyond the occlusions of its own assumptions. In Auckland these ‘technical’ biases persist and continue to generate transport plans based on assumptions that experience elsewhere has shown to be false.

Re-blaming the Public

Just as their predecessors in the 1950s and 1970s had succeeded in diverting public pressure for investment in rail rapid transit for the benefit of motorways, the ARC staff who framed the 2005 transport strategy (in many cases the same people who produced the 2003 and 1999 plans) managed to produce an outcome that was the opposite of that expressed by the public in the 2004 elections. Yet the planners seem to have projected these biases back onto Auckland’s public, as if they were the public’s problem rather than a technical distortion. This effect is demonstrated by the consultation brochure for the draft 2005 RLTS: ‘[T]ransport improvements alone will not be enough. We all need to think about our individual lifestyle and trip behaviour – are we willing to change? Working from home or car sharing would help. So would walking and cycling for local trips, and using buses and trains more.’

The 2005 RLTS process also demonstrates the extent to which the region’s bureaucrats and the directions and limitations imposed by the central government have also been able to strongly influence Auckland’s regional politicians. At the point where the public had provided the region’s politicians with a historic mandate to redress the historical flaws in Auckland’s transport planning processes, the elected representatives were distracted from this course and allowed the status quo to be perpetuated, while allowing themselves to be convinced that a new approach had been installed and reporting the shift to the public. The contradictions in the political rhetoric are illustrated by the ARC chairman’s introduction to the strategy: ‘If we do what we’ve always done, we’ll get what we’ve always got: more congested roads and motorways and worsening public and environmental health. . . . The majority of investment will continue to be on roading’ (ARC, 2005e: 4).

It had appeared that the public communicative rationality directly expressed in the 2004 elections demanding a change in transport planning priorities could not be easily diverted or dispersed. But the biases inherent in Auckland's transport planning have proven remarkably resilient. Since the 2005 RLTS was finalized the major projects that have reached the advanced planning stages in Auckland are all motorways: the Victoria Park Tunnel, the State Highway 20 extension and the Upper Harbour Motorway extension. Some initial gains for public transport occurred, including double-tracking of the western rail line and various signalling and junction upgrades, but these seem more like the redressing of past neglect rather than positive investment for the region's future. As of late 2006, considerable uncertainty remained over regional and central government support for Auckland's public transport, while further funding for roads was confirmed in subsequent government announcements.

Auckland appears unable to divert from its historical transport trajectory and find the 'off-ramp' to a more sustainable course. Road-biased technical reason continues to dominate the formulation of transport policy in Auckland. The remainder of this paper reflects on this continuing dominance and discusses the implications for the understanding of institutional practices for the sustainable transport planning, both in New Zealand and elsewhere.

No Off-ramp: Technical Reason Drives On

This paper has presented a detailed case study of the dominance of technical reason over public communicative reason in Auckland's transport planning. Our critique has shown that the imperatives for automobile dependence in Auckland which have existed for over 50 years continue to be perpetuated by planning processes that appear incapable of accurately assessing or recording public preferences and translating these into the sustainable transport plans desired by the city's residents.

Urban transport challenges press upon many metropolitan regions around the globe, particularly the dispersed car-dependent cities found in North America and Australasia. Planners have for many years been attempting to understand how urban transportation can be made more sustainable and have sought to implement plans to achieve greater urban sustainability. But as Flyvbjerg's studies and the present paper have shown, there are substantial institutional and bureaucratic impediments that limit the capacity of urban planning to shift the content of strategic urban plans to a more sustainable mode of development.

The case study that we have presented has illustrated this problem within a specific institutional context. However our study, like Flyvbjerg's, has important implications for the understanding of transport planning in broader jurisdictions. The problems of technical bias and dominance in transport planning are not unique to Auckland; Australian cities remain afflicted by such institutional blinkers and rigidities as Low et al. (2003) have demonstrated. To date, however, studies of technical and communicative reason in transport planning have not produced anything like a comprehensive critique of institutional or political practices in this area. We hope that this paper has contributed to the task of stimulating further research in this field.

The paper has necessarily limited its empirical scope to Auckland's policy and planning processes. There is a need for further research in Auckland as in other comparable cities to engage more deeply with the politics of transport planning to understand how regional and

national political contestation between formal parties and interest groups also exerts influence on transport strategies and plans.

This paper has only briefly touched on the issue of biases within technical assessment methods in transport analysis, especially transport models. A further implication of our research is that planning scholars need to more rigorously interrogate the technical assessment methods that transport planners and engineers deploy in predicting and evaluating future transport patterns. A model is only useful if it provides a valid approximation of the reality to which it is applied. In the case of many transport models there appears to be a substantial mismatch between the reality of urban travel behaviour, including the capacity of governments to shape transport outcomes, and the rather dismal assumptions on which traffic calculations are based. The often obscure technical expertise required to comprehend the internal workings of transport models also inhibits open and undistorted contestation of the model outputs by the public and by critical observers. There is a pressing need to assess whether current transportation models sufficiently incorporate sustainability criteria in their calibrations and how a greater concern for sustainability might be reconfigured within transport models.

A related question that can be reasonably posed as a result of the findings we have presented is how institutional structures and systems can be reconfigured to limit the technical biases that are so obviously apparent and ensure that these are revealed through communicative processes. There is a tension between the desire to simply improve methods of technical evaluation to better reflect sustainability imperatives and the opportunity to expand the scope of transport planning to include greater public participation and control. While we strongly support the former desire we are certain that such reconfiguration of transport planning methods might have only limited effect without a reconstitution of the public processes surrounding transport planning.

A final further consideration that we have not been able to discuss in depth is the continuing support among central government officials for privatized models of public transport provision, and which persist in Auckland largely as a deliberate central government policy (see Harris, 2007; MOT, 2006b). Mees (2005) has demonstrated the inadequacy of privatized transport models. Detailed consideration of the techno-political role of government officials in designing institutional frameworks as if they were objectively or universally applicable and preferable is beyond the immediate scope of our present study. We suggest, however, that this is an important factor requiring attention if Auckland is to make progress towards sustainable transport. The framing of institutional arrangements in transport planning as technical rather than communicative or political considerations is potentially a fruitful direction for further urban transport research.

The attempt to reconfigure transport institutions and transportation models for sustainability risks being a weak substitute for a greater task, which is to introduce greater public participation into strategic transport planning. Substituting road-biased technical expertise with sustainable technical expertise simply perpetuates the privileged role of the 'expert' within the transport planning process. In the case of Auckland there is a much broader task to be achieved, which takes the transport reins from regional and national bureaucrats and hands them to the public. This imperative is not restricted to the Auckland context, of course; there is a global need for greater public input into transport planning. Our paper has only begun to comprehend these issues and has not been able to delve into every aspect of the politics of technical reason operating in Auckland. We hope that others will find inspiration to continue this task and raise the various questions we have posed

in further enquiry into transport planning processes not only in Auckland but in urban settings throughout the world. Such research might expand the scope of study to better comprehend the interplay of political contestation and democratic accountability in plan-making processes. There remains an abiding need for scholarship that can assist to diagnose the problems that technical reason poses for policy processes and which can inform the task of finding means to achieve the supplanting of instrumental technical reason in transport planning with open and communicative public reason.

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