THE ART OF GOVERNMENT OF MEGA URBAN TRANSPORT PROJECTS

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ABSTRACT

Mega urban transport projects (MUTPs) are increasingly being used in urban environments to ameliorate the problem of congestion. However, a number of issues with regard to mega projects have been identified. The seemingly institutionalised over estimation of economic benefits and persistent cost over runs, could mean that the wrong projects are selected, and that the projects that are selected cost more than they should. The articulation of problems in a form, for which MUTP is the solution leads to poorly integrated projects that lack public acceptance. Studies to date have produced a number of solutions to these issues, including the various methods for the inclusion of the private sector in project provision and various methods for inclusion of the public in consultation on the development and implementation of projects. However the issues have shown significant intractability in the face of these solutions. This paper will provide initial findings from a study into the 'art of government' of MUTPs based on three Australian case studies from Melbourne, Perth and Sydney. Using Foucault's conceptualisation 'art of government' within the broader theory of 'governmentality' the study attempts to identify the amalgam of knowledge, technology and rationality generated within MUTPs. The purpose being to shed light on the intractability of the issues that have been identified and why good ideas to solve them have been less than fully successful.

Keywords: keyword 1, keyword 2, keyword 3…

INTRODUCTION

Mega projects are, as Frick (2008, p. 239) describes, engineering projects that are: colossal in size and scope; captivating because of their size, engineering achievements or aesthetic design; costly – and often under costed; controversial; complex; and have control issues. They are important not just for their scale and impact, but because their construction absorbs massive amounts of resources, not just in budgets, but in management time. They are an interruption in their location environmentally, socially and politically. Mega urban transport projects ('MUTPs') are mega projects built in urban areas in the field of transport. They are not only large in scale, but have a substantive impact on the nature of the transport systems

in the cities in which they are built, with the attendant potential to change land use and settlement patterns.

As cities around the world confront the need to adapt to larger populations, reconfigure for greater environmental and economic sustainability (Kumaraswamy & Morris, 2002), or renew infrastructure (Capka, 2004a), the number and scale of MUTPs is likely to grow. After all "Infrastructure provides the material links allowing for the spatially disjointed city to continue functioning as a whole, and thus for the possibility of maintaining physical contacts when required." (Bertolini, 2005, p. 73). The trend towards larger and more frequent MUTPs has been supported by the development of improved project management technology (Gantt charting, organisational change management theory, BOO (and its variants) contracting, alliance contracting, economic modelling, finance structuring, and logistics management, amongst others) (Sturup, 2006). This technology has given confidence to infrastructure builders that they can manage much larger and more complex projects both in engineering and in project management terms. Projects of $500m have become almost commonplace; projects of up to $8 billion have been mooted.

Because of this increase in the number and size of MUTPs, and therefore the impact of them, it is critical that MUTPs meet time and cost budgets, and produce the outcomes they set out to produce. Not only because resources must be husbanded, but to build and maintain sufficient public confidence to allow subsequent projects to be taken up (Allen, 2004; Capka, 2004b; Sinnette, 2004). It is for this reason that concentrated research has gone into finding solutions to the persistent issues MUTPs face. Such issues include the seemingly institutionalised over estimation of economic benefits and persistent cost over runs (Allport, 2005; Boyce, 1990; Flyvbjerg, Bruzelius, & Rothengatter, 2003); low transport performances and negative environmental effects such as landscape erosion, noise, pollution and in some cases total unsustainabilty, with projects not even being used quite apart from their environmental impact (Priemus, Flyvbjerg, & Wee, 2008a); an over focus on technical success over strategic success (Samset, 2008) and conflict between the economic imperatives which often drive these projects and local people who bear the brunt of the impact, especially through displacement (Berman, 1982; Boyce, 1990; Gandy, 2002; Samset, 2008; Windsor & McVey, 2005).

Studies to date have produced a number of solutions to these issues, perhaps most notably, the various methods for the inclusion of the private sector in project provision (Kumaraswamy & Morris, 2002; Siemiatycki, 2006; Yakowenko, 2004); risk management through allocation to the parties best able to manage it (Allen, 2004; Flyvbjerg et al., 2003; Kumaraswamy & Morris, 2002; Siemiatycki, 2006; Yakowenko, 2004); methods for development of more complex cost benefit analysis to include more insubstantial elements (Gunton, 2003; Haynes & Haynes, 2002; Vickerman, 2008), or to abandon cost benefit analysis entirely (Self, 1975; Young, 1992); methods for technical improvement to cost benefit analysis including through stochastic modelling (Molenaar & Molenaar, 2005; Reinersten & Reinersten, 2000); and strategies for better integration of projects in the community through consultation as well as generation of better information (De Bruijn & Leijten, 2007). However the issues have shown significant intractability in the face of these solutions.

This paper suggests that the intractability of these issues is not a product of having the wrong solutions, nor is it a product of the solutions being underdeveloped. Rather, it is suggested that the ontological context in which the solutions are developed is different to that

in which MUTPs occur, which means that they do not 'speak' to each other very well. Within the art of government of MUTP, the solutions do not occur as correct, or appropriate. If they are applied, they seem oddly incompatible, like they have been bolted on from the outside. In the next section of the paper, the concept of 'art of government' and how it might matter to the take up of solutions will be explored. The specific art of government of MUTPs has begun to be identified as part of a PhD study. The method used in this study, and the findings will be explored through the penultimate section, before a concluding section which provides an analysis of the interaction of the art of government of MUTPs and the solutions developed for them.

WHAT IS AN 'ART OF GOVERNMENT'

The idea of *art of government* was developed by Michel Foucault inside a broader set of ideas commonly referred to as *governmentality* which was presented in his lectures to the Collège De France in 1978 (Burchell, Gordon, & Miller, 1991). Governmentality is a little confusing because of the way Foucault used the term. It was both the title of his paper, and therefore the entire group of thinking introduced in the paper and subsequent ones (as in the *theory of governmentality*), but it was also the name of a specific art of government, which might be closely related to liberalism.

So in this paper I use the following definitions:

government is 'those ways of reflecting and acting that shape, guide, and manage the conduct of persons – including ourselves' (Rose, 1996 p.41), or 'acting to affect the way in which individuals conduct themselves' (Burchell, 1996 p.20), or it is the conduct of conduct (Foucault, 1991a)[1]; and

mentalities are collective, relatively bounded unities of forms of thought, which cannot be readily examined from within (Dean, 1999 p.16).

the art of government is the development of and understanding of the functioning of power as an art;

an art of government is a definable mentality behind the use of power in a specific process of governing for example, sovereignty, governmentality, discipline, or the art of government of MUTP, ;

governmentality is a particular art of government which is the government of individuals through the development of their ability to manage their own conduct;(Hardt & Negri, 2000), (Smith, 2005)

Since governmentality was first introduced it has been used for a wide range of purposes across a range of disciplines. A number of geographers and planners have developed and used it, and particularly the method of research involved in it, in their work (for example (Dean, 1999), (Huxley, 2007), (Flyvbjerg, 1998)). Additionally, Foucault's governmentality has been the subject of numerous studies (for example (Rabinow, 1986), (Owen, 1994), (Rose, 1999), (Burchell et al., 1991)). As a specific art of government, governmentality developed in response to increasing pressure on government to deal with ever growing

[1] It is acknowledged that this definition is different from the common usage of the term. Where necessary if I refer to that institution which is responsible for running a country I will refer to it as The Government. Similarly when using derivatives of government – governing, govern etc I mean it in the sense presented above.

numbers of individuals[2]. There have been a number of studies using a governmentality frame of analysis to look at the rise of liberalism (Burchell, 1996). These studies lend themselves to the impression that there is a historicised progression of art of governments from sovereignty, through discipline to governmentality (Walters & Haahr, 2005), or that there is a progression from government, to governance, to governmentality (Dillon, 2004). However this was not Foucault's view. Governmentality does not equate to liberalism, and it does not operate as the only art of government even within liberal democracies (Foucault, 1991a, p. 102).

Foucault developed two notions about arts of government. In his lectures of 1975-6 Foucault explored the notion of the development of understandings of state power as the art of government (Foucault, 2003). Over time the art of government became something which political science, and governments themselves were concerned with and led to the identification of many *arts of government*. Thus the art of government as it stands today is actually the application of various arts of government, recognised at various points in history and for various reasons. These arts of government could be categorised as sovereignty, discipline, and governmentality (and their various forms). Each has its own logics of power, and each is developed on top of the one before. None of these arts of government have entirely disappeared. They operate in multiplicity in different institutions and operations of government even today.

For Foucault the question of government, authority and the construction of ourselves as individuals are intertwined (Dean, 1999 p.212). Critical to his understanding of the self, is the repudiation of Kant's notion of some transcendental self (Owen, 1994), but also a transformation of Nietzsche's ideas that the self is separate from action only in language (Owen, 1994). Thus in this theory, the self is both created in language, and experienced through the application of power (our own and others). Or put another way, what is socially constructed and what is real feed back on each other. This occurs through the interplay of technology, knowledge and rationality.

Foucault observed that the various arts of government are constructed to deal with changing power relations and for ongoing management of the population, and in so doing create the circumstances which are so justified, and the technology for managing them. It is the line of thinking which has lead researchers to the insight that many problems are in fact created by the solutions which become available to fix them and that projects are developed in response to problems identified in terms which allow for their solution (Murray, 2007). Put another way, when it becomes possible to do a thing, then it becomes rational to do it through the development of new understandings of the thing and what is right behaviour in the world. It is critical to undertaking studies of arts of government to understand this relationship, which has is not dissimilar to the relationships described by Latour in his book chapter, 'Circulating Reference' (Latour, 1999)[3]. The insight is also related to Hiedigger's observation that a thing

[2] Foucault subscribes to the theory that prior to the 16th century the number of persons which needed to be dealt with by the state as individuals were very few. Thus this statement is not to say that the number of individuals increased (although population increases would have meant that) but rather the number of persons, and their use as individuals was growing.

[3] Circulating reference describes the peculiarities of an expedition into the brazilian rainforest edge, into a region in which a biologist believes that the rainforest is advancing. A pedologist has been brought in to see if he can verify this. Latour attended the research expedition and uses this process to consider how scientific knowledge is constructed. He describes the transition of the forest through

only comes to exist as a thing when there is something wrong with it, otherwise we simply experience it (Elden, 2001). Of course this implies some doing, or that some people do things, without a rationality. They simply start doing it and it is later bounded by a rationality. The latest research in neuroscience indicates that the conscious brain is actually informed of our intended actions after signals have already been sent to various parts of the body. This would support the idea that much of what is done is neither conscious nor rational at least in the way commonly understood (Bragg, 2008).

Arts of government as particularised amalgams of knowledge, technology and rationality, are a description of the way power operates in a particular theatre, discipline or institution. Foucault found these different arts of government in institutions which are as present today as they ever have been. Thus we see articulations of sovereignty in the army, in hospitals, and especially in the treatment of the mentally ill. We see articulations of discipline in youth training centres, prisons (where reform is possible), and health clinics pushing weight loss. MUTPs also manifest their art of government through their existence. These arts of government form the basis of what we might call institutional culture, where institutional culture is the specified form of an a-priori epistemology, the art of government. In this sense I am using art of government as a particular type of Heidiggerian episisteme: a way of being which determines what we see (Braun & Castree, 1998).

What this means is that there is a particular mentality given by MUTPs which informs what is logical and reasonable, how to think, and what is, and is not, to be done. It is a bounded rationality and therefore does not necessarily contain the flexibility to interact with ideas and technologies created in a different art of government. This provides a different way of explaining the difficulty that MUTPs experience in implementing the solutions put forward to their problems. In much the same way that techniques for training an army don't work in quite the same way in other adult education settings. It is not that the problem is not well defined, nor that the solution is inadequate, rather the solution does not make sense when one is operating from this different mentality.

THE ART OF GOVERNMENT OF MUTP

Methodology

The data set for this research was initially generated for the OMEGA Project 2, a study of decision making in the planning, appraisal and evaluation of 31 MUTPs in 10 countries being undertaken by the OMEGA Centre, Bartlett School of Planning, University College London. The data set includes three case studies (Melbourne's City Link, the Perth to Mandurah Railway line, and Sydney's Cross City Tunnel) made up of approximately 60 interviews, and three case study profiles developed from a comprehensive review of secondary sources about the projects. Half the interviews were conducted as "pre-hypothesis" interviews, the other interviews as "hypothesis-led" interviews.

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signs into language and then into knowledge through various technologies that the pedologist and biologist use. This is a circulating process where by things become signs become words become knowledge and back again because they never really ceased being things. The accumulation of knowledge could be said to be this process of endlessly trueing our descriptions to the world and the world to our descriptions and back again.

The pre-hypothesis interviews were designed to elicit anecdotes, or story telling, about the case study, following the concept of narrative analysis as a way of understanding *complex acts of knowing* (Snowden, 2003). Interviewees were asked about pivotal events; moments of stagnation or breakthrough; moments of rescue or sabotage; and times of community suffering or inspiration.

The hypothesis-led interviews included a series of questions asked in all OMEGA Project 2 case studies and a series of questions designed specifically for the Australian case studies. The OMEGA questions concerned project success; appraisal and evaluation; sustainability; decision making processes; management of risk uncertainty and complexity; and context. The Australia specific questions addressed the question of the art of government of MUTPs, asking about specific points in the project where changes occurred; the nature of relationships between participants in the project; and the nature of projects themselves.

Interviewees included a broad range of stakeholders who had worked on or been involved with the project especially at the conception or design stage. They included public sector employees, politicians, private sector advisors, contractors and financiers, and community members. Interviewees were identified following a review of the structure of the project and identification of key players from both the private and public sectors, and subsequently through a snowballing process. Some key respondents were interviewed in both the pre-hypothesis and hypothesis-led interview stage. For each case the pre-hypothesis interviews were completed before any hypothesis led interviews were conducted.

In developing the theoretical framework used in this work three main conceptions were used. Firstly, Foucault proposed that identifying the art of government in operation at any point in time

revolves around identifying the points of transformations in discourses of government (of the self and others); the changes within and between them; their derivations, mutations and redistributions; and the relationships between them (Foucault, 1991b).

Secondly, Mitchell Dean enhanced these ideas stating that the pertinent questions to identify an art of government revolve around the notion of the technology of power. He asks: How was the activity of government calculated? Who did that calculation and what forms of knowledge did they use? What techniques and forms of knowledge were used to implement it? Who is the intended target? What are the intended outcomes? (Dean, 1999). Finally, other studies of governmentality have focussed on the relationship between problem identification and solution (Murray, 2007). Combining these three theoretical frames, the data from both sets of interviews was analysed against theoretical groupings which relate to Dean's questions as follows (Table 1).

Table 1: Relationship between Dean's methodology and theoretical groupings

Dean's question	Theoretical Grouping
How was activity calculated?	Rationality of problem Rationality of solution
Who did the calculation?	Who was there
What forms of knowledge were used?	Technologies
What techniques and forms of knowledge were used to implement it?	Technologies
Who (what) was the intended target?	Rationality of the problem
What were the intended outcomes?	Rationality of the solution

A further theoretical grouping containing responses to the hypothesis-led interview question 'what is a project, when did this become one?' was also developed. The data under each grouping was then analysed for emerging issues and themes. The 'Technologies' grouping was further analysed according to technology type, and ended up including such technologies as cost benefit analysis, community consultation, transport modelling, public private partnerships, policy instruments and electronic tolling. For reasons of space not all the findings of this analysis will be presented. Three elements of the art of government of MUTP will be explored to provide a basis for the penultimate discussion.

The Art of Government of MUTPs as Pharaonic

The questions 'what is a project?' and 'When did this become one?' were critical to providing a foundation for the art of government of MUTP. Although expressed in different ways, respondents agreed that projects become projects when they are, as a former government Minster put it, 'a defined task which is not incapable of delivery'. Thus although it is not necessary to have a project plan, budget, etc. (which items represent the technology of project), for a project to become a project it does require a realistic prospect of being delivered. That prospect necessarily includes a commitment by someone with sufficient capacity to deliver, that the project will proceed assuming the parameters can be worked out and met in a reasonable fashion. Projects thus include the process of planning them, but they are clearly distinguished from a whim or an idea by a commitment to develop the abovementioned project plans and budgets and to provide the resources to deliver the project once these items are developed.

Projects became projects at a decision point that takes the project beyond its proponents hands. For example, bureaucrats considered that moment as being the decision by Cabinet to develop legislation, or a request by a Minister to for a team and develop a master plan (which is to ask the public service to devote serious effort to the development of the project), while a ministerial advisor pointed to the moment when 'it goes to the public, where it moves beyond being funds set in ideal circumstances, and moves to being something that's alive in its own right'. In all three cases, there was a point at which those in authority decided and that once that decision was taken the project took off and developed.

This observation about a decision point correlates with the literature on project management and mega projects, and descriptions of how projects occur (Altshuler & Luberoff, 2003; Boyce, 1990). It alludes to the notion that project exists within an art of government which is strongly sovereign or *pharaonic* (Boyce, 1990). That is, the authority which decides the project will occur is quickly made remote from the task of making the project operable. This is not to say that they are no longer involved, but once the decision has been made their role changes. The authority's involvement is now about deciding the parameters of the project rather than the question of whether the project should occur. The question of power within the project is largely avoided, the legitimacy of project actors being intertwined with the original decision which was taken. A consequence of this logic is that the original decision point must be made by an authority whose ability to do so is inviolate. The integrity of the entire project rests on that assumption.

The difficulties experienced by the Sydney Cross City Tunnel (CCT) on opening take on different characteristics if this theory is applied. The CCT was first proposed in 1998 as a

solution to surface street congestion, which had condensed to a level where more than 25% of traffic incidents included pedestrians (Road and Traffic Authority NSW, 1998). It was eventually built under a public private partnership between the government of NSW and CrossCity Motorway Company. The contract included three stages: design, finance and build twin tunnels (2.1 km in length following roughly the line of William St); design, finance and build changes to the surface streets (to ensure the decongested streets did not induce further traffic); maintain and operate surface street changes and the tunnel for a concession period of 30 years and 2 months (Catalyst Communications, 2003).

On opening, the tunnel drew far less traffic than traffic models had predicted (Joint Select Committee on the Cross City Tunnel, 2006a). CrossCity Motorway Company proceeded with the terms of the contract to make modifications to the surface streets. The changes created by the tunnel were not well received by the public, and the ensuing public backlash led to the establishment of a Joint Committee of Parliament to examine the failings of the project (Joint Select Committee on the Cross City Tunnel, 2006b).

There is a great deal of misinformation and mystery surrounding the problems experienced by the initial project owners. Looking through the idea of sovereignty however one thing that can be observed is that as the public furore progressed, not only the substance of the project came into question, but whether the project should have progressed at all. The behaviour of those undertaking the decision (the Carr government and associated Ministers) was questioned, and not defended by the government which had taken over (the new premier Iemma and associated Ministers). The problem was articulated as the government having made decisions in favour of the private provider, over the good of Sydney's motorists (the broader public disappeared from the debate). In terms of sovereignty the sovereign had violated the sacred trust – to protect the people. In the subsequent unravelling of the project, the inability for any party to regain confidence in the project (even after surface street changes were revoked), gains new clarity in the light of this failure. Once the right to make the decision was no longer inviolate, the premise on which any other actor had to act was removed. All subsequent actions concerning the project were made in a power vacuum, circumstances under which subsequent leadership was all but impossible.

The Art of Government of MUTPs as Projects

The technologies of project management strongly support the rationality of sovereignty, but also enforce a series of other logics on the MUTP. For example the Prince II program, developed by the Office of Government Commerce, UK, and widely regarded as the pre-eminent modern project management program, first requires the development of documentation which establishes who has authority within the project to make required decisions on scope, budget and so on, then it creates the documentation on which decisions must be taken (ILX Group PLC, 2009). Thus the original sovereign decision is enabled through what might be described as a set of imposed discipline. A plan is developed which at least in theory, bounds the activity of those working in the project. Decision making in this logic is defined by the parameters of the project.

Central to the notion of a project is that it has a start, a middle and an end. In fact the power of project is that it tends to deliver the product it set out to deliver. Certainly there is evidence that project management (especially in the private sector) has begun to achieve this

(Beazant, 2005). An outcome of this of course is that MUTPs tend to be focused on the end. That end is for most of the start up phase, and during construction seen as completion of the infrastructure. Despite the development of DFBM (design, finance, build, maintain) type projects being for the purpose of ensuring those that design and build the infrastructure have their attention on the operation of it (Yakowenko, 2004), in practice this is rarely accomplished. Government's focus their attention on aspects of finance and building in bid selection. For example in Sydney's CCT, only 10% weighting was given to operations or management capacity demonstrated in the tender documents.

Melbourne's CityLink encountered and overcame this fixation with ending, possibly providing some explanation for its subsequent success. CityLink was developed as a public private partnership between the State of Victoria and Transurban Pty Ltd. CityLink is 22km of roadway that provides two links, a southern link which includes two tunnels under the yarra river that links the Westgate Freeway at Southbank with the Monash Freeway in Richmond, and a western link which includes an elevated road and bridge linking the Tullamarine Freeway with the Westgate Freeway (VicRoads, 2008). Under the original arrangements, Transurban was to act as a coordinating vehicle for a number of subcontracts, including the major design and construct contract, and the maintenance and operations contract (Transurban City Link & City Link Management, 1996).

During the progress of the contract, it became apparent that the maintenance and operations contract was not integrating with the overall design of the project, and was not properly considering the interface with the customer, which their systems would generate. In 1999 the operations and maintenance subcontract was abandoned and the operations phase of the project brought under the direct control of Transurban (VicRoads, 2008). This engendered a major refocusing of Transurban towards management of themselves as a monopoly provider, with serious consideration given to ensuring their systems would allow reliable customer interactions. For example, the accuracy of the electronic tolling system was to be backed up by reliable secondary systems including photography of vehicles which did not register a transponder on the system. This would enable effective tracking and if necessary prosecution of toll evaders. This refocusing was experienced by interviewees as a major departure from the rationality of the company to that point.

The Art of Government of MUTPS as Organic

In tracking the development of the rationality of the problem and the rationality of the solution it becomes apparent that MUTPs are sticky. While these rationalities are evolving together, the rationalities used to justify changes to the project, and hence to the understanding of the problem, and why it needs solving, tend to hang around, and re-emerge, almost never being entirely abandoned. This finding is not dissimilar to that of Millar and Lessard (2000), who also found that projects evolve. It suggests that like Machiavelli's prince, the sovereign may not make unilateral decisions simply on a whim, decisions must be justified in terms of the greater good (Machiavelli, 1979). In the art of government of MTUPs this stickiness in the rationality bleeds around the decision point, perhaps as a result of an leaking of governmentality into the art of government of MUTPs. The result of this stickiness is that even where the decision makes no reference to a rationality it sometimes remains a driving factor in the project.

In the Perth to Mandurah railway (the Southwest Suburbs Railway (SSR)) the stickiness of these rationalities can be observed in the victory of the fast rail solution over the light rail solution. The SSR is owned and operated by the State of Western Australia. It was constructed under contract to a number of construction companies in 8 packages {Longhurst, 2008 #288}. The rail line stretches 70.1km from central Perth to Mandurah in the south, following firstly the central median of the Kwinana freeway to Jandakot, and then passing under the western lanes and taking a route separate to the freeway to Rockingham and then south to Mandurah {Department of Transport, 2000 #289}.

The SSR was originally mooted as a consequence of building the Northern Suburbs railway (which follows the Mitchell freeway to north of the city to Joondalup) in 1989, when the government announced in addition to building the Northern line they would review the transport needs of the southwest corridor. As such it inherited all the rationalities that had gone into the Northern suburbs railway, most importantly that it had to be fast, convenient and comfortable enough to compete with cars on the freeway, and that it had to be a train rather than a bus.

In the period between 1989 and 1999, the SSR developed on two different tracks. The South West Area Transit group (SWAT) undertook a great deal of research, and found that the area was largely self contained economicaly, and that the need for better transport within the corridor, and to Fremantle outweighed the need for rapid transit to Perth. They began to develop a light rail system which would traverse all major suburban centres between Rockingham and Fremantle {Bettison, 1992 #273}. The rationalities for this system were that the majority of persons working in the area, lived in the area; that the numbers of people commuting to Perth were lower than to Fremantle; and that the idea of self sufficiency should be supported to reduce travel time, and increase the density of jobs and residences in the area.

Concurrently a revision of the metropolitan regional plan for the corridor, led to concerns to ensure reservation of space for a future rail link between Mandurah and Perth. This was picked up by Westrail, who since 1992 had been quietly supportive of a rapid rail link to Perth via Kenwick {City of Cockburn, 1992 #274}. In 1994 the metropolitan regional scheme was amended. In 1995 Cabinet approved the financing and construction of several elements of the proposed fast rail system, put forward at the time to coincide with related developments of the Roe Highway. In 1997 Cabinet approved the development of a Master Plan for the rapid railway from Mandurah to Perth. The SWAT project report, running to metres of reports, was left behind. The light rail idea was left fallow.

One interpretation of how this occurred is that the rationalities of the Northern railway found their way into the SSR, even though volumes of evidence that did not support the usefulness of those rationalities for the southwest corridor were produced. Concerns have been raised that the subsequent success of the SSR is a product of alterations in trip behaviour generated by the line itself. Thus it's rationalities have proven themselves through a redesign of the southwest corridor. At the same time the rationalities generated by SWAT continue to manifest themselves in the SSR. For example, although the line rarely goes near the town centres of suburbs in the corridor, a huge focus has been brought to bear on the notion of developing transit oriented development (or new town centres) in the greenfield sites around the train stations.

Conclusion

In the sections above three elements to the art of government of MUTP have been explored. To the extent that it can be described as a particular amalgam of technology, knowledge and rationality, MUTP could be a 'new' art of government, albeit one that includes elements, such as sovereignty, that have previously described. Given how art of government functions, understanding the art of government of MUTP could render new insights and provide assistance with a number of the key issues identified above. The following section will attempt to draw out the linkages between the issues and solutions identified and the way that the art of government of MUTP might operate.

HOW THE ART OF GOVERNMENT OF MUTP AFFECTS ITS PROBLEMS AND SOLUTIONS

The first issue with MUTPs pertains to how projects and problems interact. One could naively imagine that MUTPs occur as a result of a rationally identified need. The literature suggests this is not the case. Projects are solutions in search of a problem (Priemus, Flyvbjerg, & Wee, 2008b). There is a lack of attention to strategic success (whether a project's objectives are consistent with needs and priorities in society and has long term benefits which could reasonably be expected to be produced) and an over focus on tactical success (whether the project was on time and budget) (Samset, 2008). The tendency for cost benefit analysis to be used exclusively in terms of comparisons of various forms of the same project rather than for the purpose of comparing the costs of not doing anything, or using the money for some completely different project or problem is indicative (Haynes & Haynes, 2002), (Gunton, 2003).

Given the focus of the art of government of MUTPs is towards an end point, or the construction of a product, this lack of strategic rationality is hardly surprising. The articulation of something as a project means that the anticipated outcome of the project, must be justified through identification of a problem for which the project is the solution. Projects therefore move rapidly from 'something that could be done' to 'something that must be done' in order to solve some particular problem. Once this transformation has occurred, any question of ignoring the problem ceases to be a legitimate political act.

If mega projects are actually the product of a process of coalition building rather than a normative needs analysis (Miller & Lessard, 2008), then we can conclude that in most cases any reasonable criteria for determining whether a project is actually worth doing – in the sense of whether society wants or needs it is by-passed. MUTP advocates go straight to the question 'can we do this thing?'. The question of 'should we do it?' is subsumed by the fact that we can. Until recently it could be argued that this was less of a problem where projects were privately funded and would minimal impact on the environment, society and economy. But most MUTPs are not entirely private, have wide ranging impacts on the environment, society and economy in which they are located, and in these days, use up increasingly scarce investment funds not to mention their impact on the resources of government and society while they are being produced.

One outcome of the sovereign element to the art of government of MUTPs is that it empowers decision makers to make decisions in terms of the 'greater good'. Certainly the

issues associated with displacement of persons in favour of these projects suggest a form of power where the imposition of the will of the government on the people, or a group of people is justified. The fact that project proponents feel they need government investment and regulation to get these projects done indicates more of this type of mentality. This element of the art of government of MUTP also explains why greater involvement of the public through consultation, and democratic deliberation finds it hard to function around MUTPs.

In governmentality the primary art of government that the public operates from, individuals are empowered as managers of their own conduct. At its pinnacle, this logic is reflected in advanced liberalism where the individual is reconditioned to entrepreneurial behaviour through making everything conditional upon that behaviour, life becomes a cost/benefit analysis (Rose, 1999). Thus in governmentality the logic of power is that power is located in the individual.

If the decision to undertake an MUPT is largely sovereign then Governmentality is a logical threat to the development of MUTPs. It threatens the likelihood of their occurring and blurs their function where they are implemented.. In governmentality, the state is increasingly expected to remove itself from activity, because the 'will of the people' becomes almost impossible to identify. The 'people' are now individuals who have been given the conditions to manage themselves, their individual will is identified through the market and their choices as consumers. In this logic, MUTP would only occur with the agreement of all individuals affected or a in a truly consumer driven market demand. If we reinterpret De Bruijn & Leijten's (2007) work on the increase in contestation of information as a function not of the vibrancy of democracy but rather from the increasing application of governmentality we can see how this logic plays out. Governmentality, increases peoples sense of needing to rely on their own judgement as they are increasingly individuated and increasingly responsible for their actions and beliefs. This leads to a decrease in the ability to "take other's word for it", and therefore to act collectively, which would logically lead to a decrease in the number of mega projects and to greater contestation of them.

Two technologies are leveraged to solve the problems of lack of focus on strategic success {Samset, 2008 #316}, and potential unsustainability {Priemus, 2008 #308}; CBA and public consultation. CBA can be seen as an attempt to produce an uncontroversial scientific analysis which will generate agreement amongst individuals, or substantiate a true market demand (which is rarely achieved). CBA is a technology that leverages rational analysis, and therefore 'discipline' as an art of government to try to deal with a product of governmentality. Thus it is formed in a different art of government to both soverignty and governmentality, and not surprisingly it achieves its objective neither in the public domain, nor in MUTP. In CBA data is normatively accurate. In governmentality, data is highly malleable, and therefore subject to distortion in situations of the imposition of power. In sovereignty data is validated by the power structures that create it, and the disciplines leveraged by CBA are largely irrelevant.

Another solution suggested to this malleability of information and indeed to gaining broad agreement for MUTPs is public consultation. As a technology, public consultation relies on communicative action and generation of shared knowledge through Habermasian type deliberative processes. The issues confronted are similar to those confronting deliberative planning models, the problem being that deliberative planning leads to platitudes rather than allowing for real collisions and politically unpalatable decisions (Brand & Gaffikin, 2007). In

MUTPs the platitudes used to gain agreement in these processes often create significant changes to the scope, scale, intent of the project itself. This interferes with the inherent logic of MUTP which is to deliver the set product, on time and on budget.

Better understanding of the art of government of MUTPs and the technologies of CBA and consultation, would potentially enable more careful consideration of the application of these technologies which are developed in different arts of government. This might lead to more appropriate timing, and use of such technologies. Such understanding may provide further information about whether the overspending on MUTPs is deliberate, or just a lack of consciousness or something else. It may also point to the need to change the way projects are assessed and implemented. Perhaps a solution is to keep the question of whether a project should occur (which could take place in governmentality) separate from its implementation (which could take place in sovereignty). Such a separation might allow consultation based in governmentality to be separated from the distorting influence of the art of government of MUTPs and stop the consultation from distorting the MUTP.

CONCLUSION

It can be seen from the above discussion that MUTPs are a significant concern at this particular time and place, and that they face significant issues. The brief review above demonstrates the potential inherent in understanding the art of government of MUTP and how it interfaces with the issues and solutions MUTPs face. This paper has only delivered a snapshot of what insights may be available through this different viewpoint. The insights indicate that in addition to possible further developments in the solutions we already have for MUTP issues, attention needs to be focused on another domain of management, a management of the relationships between different arts of government, and the ontology that they variously produce.

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