
Revisiting project successes/failures: From behavioural biases to project pork-barrelling by politicians¹

By Alan Stretton

INTRODUCTION

I first approached questions about project success/failure by writing an exploratory series of six articles in this journal from late 2014. These highlighted a paucity of reliable data on success/failure rates, their types, and causes. In later articles I further examined some of the sparse data from this series in a little more detail. A few of the references I quoted also referred to behavioural bias in decision making, such as optimism bias. However, at the time I did not really appreciate how important they were.

More recently, after reading a book about the work of Tversky and Kahneman on behavioural bias at large, and looking further into Flyvbjerg's analyses of its relevance to the project context, their obvious importance appears to warrant an additional article.

This article will look further into some aspects of Flyvbjerg's analysis, starting with optimism bias and the planning fallacy, then strategic misrepresentation and political bias, followed by an extension of the latter into political pork-barrelling with projects.

SOME EARLIER ENQUIRIES INTO PROJECT SUCCESS/FAILURE

From time to time I have discussed "project" success/failure in this journal, but lack of agreement about just what constitutes project success/failure, and lack of reliable and comprehensive data, has led to only partial and tentative conclusions about frequencies, causes and effects of project success/failure.

I originally approached this subject in an exploratory series in this journal some years ago (Stretton 2014j-2015e). Those articles demonstrated vast deficiencies in data on project successes and failures, and in published causes of project failures. In spite of the meagreness of data on the latter, the dominance of two cause-of-failure groups appeared to be too pronounced to ignore. One was a project execution-related group of causes, which represented 30% of total causes, and which directly relate to problems in "doing the project *right*" (to borrow a descriptor from Cooke-Davies 2004). The other dominant group of causes of failure was project initiation-related, and comprised 40% of total causes. These latter causes could be broadly related with problems with "doing the *right* project". As we will see, this also appears to be the area in which behavioural bias in decision making has the greatest impact in the project context.

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Later, in Stretton 2018a, I discussed some of the above causes of failure in a little more detail, followed by Stretton 2018k, which included material from an article by Jenner 2015. This, in turn, included references to Kahneman, Flyvbjerg, and behavioural biases, whose importance I had not fully appreciated at the time. However, just recently I came across an important book by Lewis 2017, which has notably enhanced my understanding of the importance of the work of Kahneman, and his colleague Tversky.

LEWIS' BOOK ON TVERSKY, KAHNEMAN, AND BEHAVIOURAL BIASES

The book by Lewis 2017 is entitled *The Undoing Project: A friendship which changed our minds*. The friendship was between Amos Tversky and Daniel Kahneman, and the *undoing* related to assumptions about the decision-making process – specifically, about the ways in which the human mind errs, systematically, when forced to make judgements in uncertain situations. Their work created the field of behavioural economics, amongst many other new approaches, and led to Kahneman winning a Nobel Prize in Economic Sciences in 2002 (Tversky died in 1996).

This book automatically led me to thinking more seriously about the importance of behavioural biases in decision making in project management. Coincidentally, around this time David Pells brought to my attention a recent paper by Flyvbjerg on *Top ten behavioural biases in project management: An overview* (Flyvbjerg 2021), which draws heavily on the work of Tversky and Kahneman, and on his own very substantial discussions and interactions with the latter from around 2003. Some of his findings are now discussed.

FLYVBJERG'S TOP TEN BEHAVIOURAL BIASES IN PROJECT MANAGEMENT

We start with a note on terminologies used by Flyvbjerg, with the following quote from the abstract of his 2021 paper.

First, we argue it is a mistake to equate behavioural bias with cognitive bias, as is common. Cognitive bias is half the story; political bias is the other half.

If I have understood him correctly, Flyvbjerg has used the terminology *cognitive bias* to describe “the ways in which the human mind subconsciously errs, systematically, when forced to make judgements in uncertain situations”, as noted above in referring to the book on Tversky and Kahneman,.

Regarding *political bias*, Flyvbjerg tends to focus specifically on “strategic misrepresentation aimed at getting project underway”, which he describes elsewhere as “the deliberate ‘cooking’ of forecasts to get ventures started”. His discussions with Kahneman about adding this form of bias to the latter’s cognitive bias approach led to the following note in Flyvbjerg 2021.

When Kahneman and I compared notes again, we agreed the balanced position regarding real-world decision-making is that both cognitive and political biases influence outcomes.

Thus, we find that Flyvbjerg’s top ten behavioural biases in project management, summarised in Figure 1 below, include both political and cognitive biases.

NAME OF BIAS	DESCRIPTION
1. Strategic misrepresentation	The tendency to deliberately and systematically distort or misstate information for strategic purposes. Aka political bias, strategic bias, or power bias
2. Optimism bias	The tendency to be overly optimistic about the outcomes of planned actions, incl. overestimation of the frequency and size of positive events and underestimation of the frequency and size of negative ones
3. Uniqueness bias	The tendency to see one’s project as more singular than it actually is
4. Planning fallacy	The tendency to underestimate costs
5. Overconfidence bias	The tendency to have excessive confidence in one’s own answers to questions
6. Hindsight bias	The tendency to see past events as being predictable at the time those event happened
7. Availability bias	The tendency to overestimate the likelihood of events with greater ease of retrieval (availability) in memory
8. Base rate fallacy	The tendency to ignore generic base rate information and focus on specific information when making decisions
9. Anchoring	The tendency to rely too heavily, or “anchor” on one trait or piece of information when making decisions
10. Escalation of commitment	The tendency to justify increased investment in a decision, based on the cumulative prior investment. despite new evidence the decision may be wrong. Also known as the sunk cost fallacy.

Figure 1. Top ten behavioural biases in project planning and management.

Adapted from Flyvbjerg 2021, Table 1.

Further, Flyvbjerg suggested that strategic misrepresentation is more likely to be stronger with big, strategic projects than with smaller less strategic projects. He says,

For project planning and management, the following propositions apply:

Proposition 1: For small projects, with low strategic import and no attention from top management, bias, if present, is likely to originate mainly with cognitive bias, for example, optimism bias.

Proposition 2: For big projects, with high strategic import and ample attention from top management, bias, if present, is likely to originate mainly with political bias, for example, strategic misrepresentation, although cognitive bias is also likely to be present.

We now look briefly at optimism bias, before going on to discuss political bias, and then political pork-barrelling.

OPTIMISM BIAS AND THE PLANNING FALLACY

Optimism bias: *The tendency to be overly optimistic about the outcomes of planned actions, including overestimation of the frequency and size of positive events and underestimation of the frequency and size of negative ones* (Flyvbjerg 2021)

Most practicing project managers will be all too familiar with optimism bias, particularly in the form of its subcategory, the *Planning Fallacy: The tendency to underestimate costs* – particularly the tendency to plan according to best-case scenarios, which

Flyvbjerg has called EGAC, for Everything Goes According to Plan. The optimism bias has been frequently discussed in the project management literature, and I have little to add to these basic materials. However, I will add an Australian example.

Media coverage of optimism bias on an Australian infrastructure project

The subject of optimism bias has also found its way into the Australian news media from time to time, generally in relation to transportation infrastructure projects. A comparatively recent example arose here in Sydney, where we had a substantial light rail project which experienced all sorts of trouble, both cost-wise, and time-wise. Smith 2018, a reporter for the *Sydney Morning Herald*, discussed the following problems with business case estimates for this project, as revealed by two different external reviewers.

In February 2014 the *Herald [Sydney Morning Herald]* revealed that a peer review of the business case conducted by Evans & Peck warned that the government had been overly optimistic in its assumptions.

In 2016 the NSW Auditor-General reported that cost blowouts in the project were “due to incorrect estimates” in the project’s business case produced a year earlier.

Evidently optimism bias and the planning fallacy were alive and well with this project.

Allowing for optimism bias in practice when there is little available historical data

It is one thing to recognise the ubiquity of optimism bias and the planning fallacy, but it is quite another to work out how to handle it in practice, particularly when there is little available historical data to help.

For example, I spent two of my working years before joining Civil & Civic with a major Australian construction contractor, and a good deal of that time on preparing estimates (bids) in the competitive tendering market. The company had little relevant historical data, so that most of these estimates were developed on Flyvbjerg’s EGAC basis. We (with senior managers) would then apply what I called a “foul-up factor” – generally a percentage increase on the EGAC estimate to allow for inevitable foul-ups in practice.

I don’t know how our competitors did their estimates, but I do know that we were at the mercy of their circumstances – whether they stuck with their own EGAC estimates, or had different foul-up factors, or made straight-out oversight mistakes in their tenders (which happened quite often), or “bought” the contract at a low price to keep otherwise idle equipment working (also quite frequent), or some other circumstances.

Personally, this period in the estimating and tendering business was great experience for me, but I didn’t remain long with that employer, because I didn’t want to spend much more of my professional life in an environment in which one had so little control over the above aspects of one’s destiny.

I will also note here that Flyvbjerg has suggested using the descriptor *The Planning Fallacy (Writ Large)* to cover a broader understanding of the planning fallacy, which not only covers “the tendency for people to underestimate costs, schedules, and risks for planned action”, but also includes the tendency of people to “overestimate benefits and opportunities for those actions”.

STRATEGIC MISREPRESENTATION AND POLITICAL BIAS

Strategic misrepresentation: *The tendency to deliberately and systematically distort or misstate information for strategic purposes. Aka political bias, strategic bias, or power bias.* (Flyvbjerg 2021)

Other descriptors used in Flyvbjerg 2021 include:

- strategic misrepresentation aimed at getting project underway
- the deliberate ‘cooking’ of forecasts to get ventures started
- a deliberate deception, and as such, it is lying

Research findings on strategic misrepresentation in transportation infrastructure

Flyvbjerg 2021 discusses research on strategic misrepresentation in transportation infrastructure forecasting by Wachs 2013, who summarises his findings from more than 25 years of scholarship in this area as follows.

“While some scholars believe this [misleading forecasting] is a simple technical matter involving the tools and techniques of cost estimation and patronage forecasting, there is growing evidence that the gaps between forecasts and outcomes are the result of deliberate misrepresentation and thus amount to a collective failure of professional ethics.... Often...firms making the forecasts stand to benefit if a decision is made to proceed with the project”.

Flyvbjerg also quotes from a senior consultant who pointed to similar instances of (in this case engineers) misrepresenting forecasts simply to justify the project to go ahead.

I have not been involved in, or had any type of direct knowledge of, these types of deliberate misrepresentations by individuals or organisations that stand to specifically benefit them, so have nothing to add to this particular type of misrepresentation.

Other types of strategic misrepresentation by politicians

However, with another type of case quoted by Flyvbjerg 2021, the reasons for misrepresenting forecasts were more literally political, and can affect a much wider public more directly. Flyvbjerg quotes from French architect Nouvel 2009, as follows.

In France, there is often a theoretical budget that is given because it is the sum that politically has been released to do something. In three out of four cases this sum does not correspond to anything in technical terms. *This was a budget that was made because it could be accepted politically. The real price comes later.* The politicians make the real price public where they want and when they want. (Flyvbjerg’s italics).

This form of misrepresentation goes a long way towards a more extreme form of political bias, which is commonly known as pork-barrelling. Pork-barrel projects are not widely discussed in the project management literature, at least under this particular heading. But they are all too common, and profoundly affect whether the “right” projects – i.e. projects which represent the best value for the public – are chosen.

FROM POLITICAL BIAS TO PROJECT PORK-BARRELLING BY POLITICIANS

***Pork-barrelling:** The utilization of government funds for projects designed to please voters or legislators and win votes. (Google)*

I will be primarily discussing the role of projects in political pork-barrelling in Australia – not because I think that such miss-use of public funds is confined to Australia (which it clearly is not), but because I have much more information about, interest in, and concern with, its place in my own back yard.

Australian political pork-barrelling with transportation infrastructure promises

A recent article by Matthew Knott in Sydney’s Sun-Herald newspaper addressed pork-barrelling very directly (Knott 2022). He briefly discussed a report by the Grattan Institute, an independent public policy think-tank, on the scale of pork-barrelling, and lack of real accountability by politicians, as follows.

A report by the Grattan Institute released last week [c. 22 March 2022] found Australia had a “long and bipartisan history” of pork-barrelling transport funding.

Just one of the 71 Coalition transport promises worth \$100 million or more at the last election [in 2019] was based in a business case approved by Infrastructure Australia. As for Labor, just two [of] its 61 transport funding announcements made during the 2019 campaign was based on a business case approved by Infrastructure Australia.

Infrastructure Australia is an independent statutory body, established in 2008, to provide independent research and advice to government and industry on projects and reforms relating to investment in Australian infrastructure. However, it is an advisory body only, and has no real “teeth”, as the above quotation indicates.

So, we have a situation where most of the projects that politicians are prone to promise during election campaigns have had no credible estimates of cost and/or benefits.

Political commitment to infrastructure projects before full cost/benefit analyses

It is bad enough to make political promises for projects which have not yet had a proper cost/benefit analysis. But it is so much worse for a politician to formally commit to delivering a project before such an analysis has been made. Yet, in Australia, we find far too many projects being formally committed without credible estimates of costs and

benefits. As a previous head of Infrastructure Australia said (quoting from Gittens 2018, reporting on a statement from its outgoing head, Philip Davies, in July 2018),

“...too often, we see projects being committed to before a business case has been prepared, a full set of options have been considered, and rigorous analysis of a potential project’s benefits and costs has been undertaken”.

Political pork-barrelling via biased allocations to marginal electorates

As Charles 2022 explains, the present Australian government has developed ways to facilitate political pork-barrelling on rather a substantial scale, as follows

The [Australian] High Court has made it clear that the [parliamentary] executive does not have free reign to spend public money as its members wish and that the executive must, with rare exceptions, have statutory authority for its spending. The [present] government has developed programs and grant schemes under which vast amounts of public money are spent, in an attempt to avoid the requirement of obtaining statutory authority.

Charles goes on to discuss three examples of the latter, as follows.

- ***The Australian Sports Commission: The “sports rorts”***

We have actually had two of these in the past thirty years. The most recent was in 2019, valued at approx. \$100 million, described by Charles 2022 as follows

The sports rorts were exposed by the auditor-general in a report published in January 2020. That report said that the Australian Sports Commission had prepared well-structured guidelines with transparent weightings but the [Sports] minister’s office disregarded these and began its own assessment focussing on marginal electorates. Professor A. J. Brown, a board member of Transparency International, said of the sports program: “Fundamentally it is corruption. What has happened here is corruption.”

There was a very similar case in 1993 (when the present opposition party was in power), which led to the resignation of the (then) Sports Minister. Both scandals have been widely publicised and criticised.

- ***The National Car Park Fund: The “car park rorts”***

Charles 2022 followed his discussion of the “sports rorts” with the following note on what was dubbed the “car park rorts”, which combined biased allocation with lack of cost-benefit analyses, valued at approximately \$660 million.

This was followed by a second report of the auditor-general in mid-2021. The Coalition’s Urban Congestion Fund was set up to increase traffic network safety and efficiency. Under the National Car Park Fund, 47 projects were selected, half of them allocated on a single day – the day before Morrison called the 2019 election. All were in vulnerable seats, there were no merit or eligibility criteria, no cost-benefit analyses and no significant consultation

- ***The Safer Community Fund***

Finally, Charles cites a third such scheme, valued at approximately \$184 million.

In February this year, a third report of the auditor-general concluded yet another example of a party-politically biased federal grants program was the \$184 million Safer Community Fund, set up in 2016. The report said that grants made under this program also favoured government-held seats, and that decisions were often made without clear and recorded justifications.

Summarising the above, Charles wrote:

These three examples of political corruption alone total some \$944 million, and the Coalition had many other such programs.
Pork barrelling is not only political corruption, it is a breach of the rule of law and an assault on our democracy -

The first two examples in particular have been lively topics in the Australian media in recent times, and there are likely to be others to follow – particularly at the time of writing, when we are in formal campaign mode for an Australian parliamentary election on May 21.

There have been some quite high-level recommendations about rectifying this situation on pork-barrelling activities, particularly with infrastructure projects, as now discussed.

Proposals for removing such infrastructure project decisions from politicians

I will now quote further from Knott 2022, who discusses the viewpoints of a retiring MP (Member of Parliament), John Alexander, on this subject. This is particularly relevant, as Alexander was chair of the House of Representatives Standing Committee on Infrastructure, Transport and Cities (until the election was called in April 2022), and therefore in an informed position to discuss pork-barrelling in these contexts.

- ***An independent authority for infrastructure funding and allocation?***

Knott 2022 reported on Alexander's viewpoints as follows.

[Australian] Politicians are so addicted to using infrastructure spending by buy votes that responsibility for nation-building projects should be taken out of their hands and assigned to an independent authority, departing Liberal MP [Member of Parliament] John Alexander says.

Alexander expanded on the need for, and nature of, such an independent authority, as follows (Knott 2022).

Mr Alexander – chair of the House of Representatives Standing Committee on Infrastructure, Transport and Cities – said he supported a proposal by the Reserve Bank governor Philip Lowe to run major infrastructure funding like monetary policy, at arms length from the government. Ministers would still need to sign off on projects, he said, but non-partisan experts would be responsible for deciding which major projects

deserved funding. This would give voters faith [that] infrastructure projects were based on the national interest rather than short-term political calculations, he said.

“There needs to be an independent authority that does the long-term planning so it’s not piecemeal, ad hoc, and used as a political bargaining chip”, Mr Alexander said.

- ***Beefing up Infrastructure Australia?***

He [Alexander] said that Infrastructure Australia, established in 2008 to advise the government on infrastructure funding, has “no weight at all” and should be significantly beefed up.

- ***A national integrity commission?***

The current government promised to establish a national integrity commission, but developed what Charles 2022 described as a “sham”, and a “useless and contemptible model” - in other words, a model with no effective “teeth” to investigate and expose corruption in the interests of the community, let alone put an end to it (including the types of scandals identified above). According to Charles,

The [current] opposition and most crossbenchers have made it clear that they seek an effective integrity commission, not the sham that is proposed by the Morrison government.

So, what actually happens will depend on who wins the election, and on what actions the winning party actually takes to establish a national integrity commission. If the latter is established, then perhaps some specific initiatives for an independent infrastructure body might also be facilitated. But few of us are holding our breath on such outcomes. Personally, I still have problems with believing parliamentarians are likely to pass legislation that so dramatically curtails their propensity to use pork-barrelling to feather their own political nests. But I hope I’m wrong.

Summarising the above, we have moved from examples of political bias in the forms of inadequate cost/benefit analysis – ranging from deliberately falsified to none at all – to political pork-barrelling via biased allocations to marginal electorates; and also a variety of mixes of the two. This substantially extends the range of behavioural biases in the project context from those discussed by Flyvbjerg into projects involved in the legally contentious pork-barrelling processes favoured by so many Australian politicians.

Where does project management stand re project pork-barrelling by politicians?

The answer to this question would appear to depend on which sector of the project management domain you are talking about. I have been told quite directly by certain project managers in supplier organisations that it doesn’t matter to them whether the pork-barrelled project is poor value to the community or not. My personal position is that I am only interested in delivering projects which represent good value to the users – simply because the latter is the basic reason why I have devoted a good deal of my life to projects and their management in the first place – i.e. to help contribute something positive to society. However, as individuals, few of us are in positions to influence how

politicians behave. It seems to me that only collective public pressure on politicians has any chance of influencing them.

This rather naturally moves us on to consider whether our representative project management institutes, associations and the like might be able to influence politicians in this context. I am not sure if they could do much on their own – even if they saw this as a priority – but in combination with similar bodies representing other disciplines and other interested groups, perhaps they could. I don't see this happening any time soon in the Australian context, but this situation could change quite dramatically if a national integrity commission were to be established in this country.

SUMMARY/DISCUSSION

This article emerged from a comparatively recent recognition that I had not previously appreciated the importance of behavioural biases in project management decision making, and project success/failure. I first briefly discussing Lewis' book on Tversky and Kahneman's work on behavioural bias, and then a recent overlapping paper by Flyvbjerg, in which he listed his top ten behavioural biases in project management.

I started with Flyvbjerg's optimism bias, and its subcategory, the planning fallacy, and exemplified a Sydney infrastructure project for which two different reviewing bodies had publicly nominated optimistic assumptions and incorrect estimates as the causes for the actual cost and time blowouts. I also briefly discussed my own experience in allowing for optimism bias when tendering for construction projects.

I then turned to Flyvbjerg's top category, strategic misrepresentation and political bias, drawing first some of his own examples, before moving on to a more extreme form of political bias which is not often discussed under the title I used, namely project pork-barrelling by politicians. This has been the most prominent theme of this article.

I first quoted from a recent newspaper article on a long history of pork-barrelling, notably in transportation infrastructure, by both sides of Australian politics, and particularly the absence of any credible cost or benefits forecasting for most of the multitude of projects that politicians are prone to promise during election campaigns.

Moving beyond promised projects to committing to them, I recorded an observation of a former head of Infrastructure Australia that, all too often, projects were committed to "before a business case has been prepared, a full set of options have been considered, and rigorous analysis of a potential project's benefits and costs has been undertaken".

I then moved on to discuss newspaper reports of political pork-barrelling in Australia via biased allocations to marginal electorates, and three very prominent examples:

- The Australian Sports Commission: The "sports rorts" (approx. \$100 million)
- The National Car Park Fund: The "car park rorts" (approx. \$660 million)
- The Safer Community Fund (approx. \$184 million)

It was then noted that these examples of political pork-barrelling, which total some \$944 million, are only three of many other existing programs. Most of these, and particularly the “car park rorts”, involve a high proportion of infrastructure-type projects.

We then discussed proposals which have been put forward for removing decisions on infrastructure project from politicians, or otherwise regulating them. These included

- An independent authority for infrastructure funding and allocation
- Beefing up Infrastructure Australia
- A national integrity commission

The latter is the most widely discussed issue in the public domain at the present time. However, how this develops depends on the results of the upcoming election, and what the elected party actually does in progressing this key issue.

Finally, I asked the question as to where project management stands in relation to influencing project pork-barrelling by politicians. I concluded that the only way that this might happen would be if our project management representative bodies were able to act in unison with similar bodies representing other disciplines and other interested groups in attempting to influence the political scene at large.

Overall, I have tried to indicate how important behavioural bias can be in the context of helping determine project successes and failures, and have particularly focused on the (as yet) unresolved problem of certain types of unconstrained project pork-barrelling by politicians, particularly in the context of major Australian infrastructure projects. I have spent some time on the latter simply because they are only marginally covered in the strategic misrepresentation and political bias section discussed earlier.

It is also noted that I have restricted discussion of examples of pork-barrel projects to the Australian scene. I know that they also happen elsewhere, but do not have sufficient knowledge to comment on the situation in other countries. But I certainly hope that they have much stronger checks and balances than we do, and that these are effective in restricting the extent to which their politicians are allowed to misuse public funds in pork-barrelling exercises.

All these types of project-related behavioural biases, and their extension into project pork-barrelling, are broadly concerned with choosing the “right” project (and with “right” ways of choosing the “right” project!). This is still a somewhat neglected area in the project management literature, but a critically important one – because what is the ultimate utility of doing the project “right”, if it is not the “right” project in the first place?

It seems to me that we still have a long way to go in properly addressing this question, and in broadening our vision and practice of project management accordingly.

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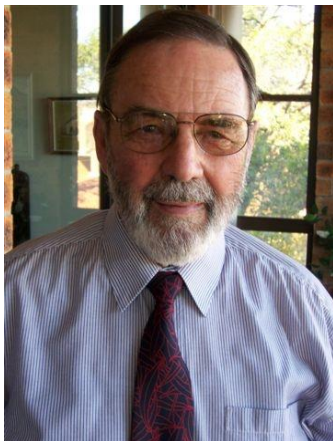
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