

Working Paper Proceedings

15th Engineering Project Organization Conference
with
5th International Megaprojects Workshop
Stanford Sierra Camp, California
June 5-7, 2017

Governing Strategic Planning in Pluralistic Projects: A Polycentric Commons Approach

Nuno Gil, Manchester Business School, UK

Proceedings Editors

Ashwin Mahalingam, IIT Madras, Tripp Shealy, Virginia Tech, and Nuno Gil, University of Manchester



© Copyright belongs to the authors. All rights reserved. Please contact authors for citation details.

Governing Strategic Planning in Pluralistic Projects: A Polycentric Commons Approach

This study explores the governance of strategic planning in pluralistic projects. In these settings, the promoter faces the challenge of co-producing strategic choice with multiple actors with conflicting goals whilst avoiding scope creep, overruns, and defections. This study was sparked by a pluralistic project where strategic planning was reportedly successful. The setting is a program to develop a fleet of school buildings wherein national/local government officials and the schools' leaders shared authority over strategic design choices (project scope). For guiding the case research, we first extend Ostrom (1990)'s theory of polycentric commons governance to management studies on collective action. Using this cognitive lens, the analysis yields a model that illuminates how polycentric commons governance can encourage project actors to cooperate in strategic planning. The proposed model derives a prevailing perception of positive performance from, first, two complementary clusters of organizing structures and rules—one aimed at preempting strategic disputes and another at resolving disputes; and second, to adaptive performance where local goals are accommodated without overly sacrificing the promoter's goal.

INTRODUCTION

This study aims to contribute to our understanding of governing strategic planning in a pluralistic project. The aim of strategic planning is to discuss the mission and goals, explore the environment, allocate resources, choose between alternatives, and plan actions of implementation (Andersen 2004, Morris 1994). In pluralistic settings, multiple actors with conflicting goals share decision-making power and must cooperate to co-produce strategic choice (Denis et al. 2001, 07, 11, Hargrave and Van de Ven 2006). In *extreme* pluralist settings, a 'dominant coalition' (Pettigrew 1973, Hardy 1995) can rarely mobilize sufficient power to overcome opposition and impose their perspective on others. Hence extreme pluralistic settings, such as universities (Jarzabkowski et al. 2010), public infrastructure projects (Pitsis et al. 2003), and hospitals (Denis et al. 2001) create major challenges for co-producing strategic choice.

Strategizing under pluralism is inherently a political activity (Cohen and March 1986, Mintzberg 1979, Satwo 1975, Narayanan and Fahey 1982). Strategic choice emerges through reciprocity, compromise, and negotiations between self-interested actors (Jarzabkowski et al. 2010). It is the 'art of the possible' in which any potential strategic choice is likely to encounter multiple challenges from leaders, organizational constituencies and the broader environment under different layers of governance arrangements (Denis et al. 2007, 01, 11).

Governance relates to the organizing structures and rules that allocate decision-making authority and resource control, shape behaviors, and resolve disputes (Galbraith 1973, Lawrence and Lorsch 1967, Simon 1962). Governance impacts how pluralistic organizations achieve objectives and interface with the environment (Carney 1987, Astley and Fombrum 1983, Ostrom 1990). As Denis et al. (2001) argue designing governance, or 'governmentality' (Clegg et al. 2002), is a substantive act of leadership. Our study looks at *project* governance. We argue this focus matters given the increasing 'work projectification' (Hobday 2000, Lundin and Söderholm 1998) in government and regulated firms, two classic pluralistic contexts (Jarzabkowski and Fenton

2006). Hence we ask: *which governance structures can project leaders design to help reconcile conflicting goals with the initial project targets, and how can they do so?*

In extreme pluralistic projects, effective governance needs to counter a prevailing perception in the eyes of third parties that strategic planning is doomed to ‘fail’ (Hall 1972, Morris and Hough 1987, Merrow et al. 1988, Flyvbjerg et al. 2003). This perception is rooted in norms that associate ‘success’ to meeting initial targets, and which go back to the origins of project management as a professional discipline (Cleland and King 1968). Because legitimacy is about external validation relative to what established norms deem appropriate (Scott 1987), scope creep and cost/schedule overruns destroy external legitimacy. For example, a UK government watchdog highlights ‘regular failure’ in the government’s £500bn project portfolio (NAO 2015).

Extant studies trace the ‘failure’ of pluralist projects to decision pathologies endemic to these settings. Escalating commitment occurs when the ‘constellations of leaders’ who share decision-making power (Hodgson et al. 1965) continue to add scope to the project albeit evidence suggesting a losing course of action (Staw 1981, Ross and Staw 1986). Escalating indecision occurs when the leaders become trapped in continually making, unmaking, and remaking strategic choice (Denis et al. 2011), or as Latour (1996) puts it when ‘everybody agrees not to make any decisions’. Other known decision pathologies in pluralistic projects are optimism bias and strategic misrepresentation (Flyvbjerg et al. 2003), both of which lead to collective commitment to unrealistic goals or ‘inflationary consensus’ (Denis et al. 2011).

Whilst literature is rich in explaining why pluralistic projects ‘fail’, we still know little how they can succeed (Pitsis et al. 2003), and thus how to tame the ‘wicked’ (Rittel and Weber 1971) strategic planning. Hence we were intrigued when we heard good news from third parties about the £450 million program to build state schools in Manchester, UK, the award-winning program that sparked this research. The UK government was the promoter and financier; the local government, the Manchester City Council (hereafter the Council) was the recipient of funds and future asset manager. At the heart of this case research (Eisenhardt 1989, Yin 1984) is the Council’s decision to give to all schools equal rights to influence strategic planning. Strategizing occurred in a context of extreme pluralism and high stakes due to sharp disagreement between and within professions over the right design choices for a 21st century school building.

Amplifying our sense of surprise that the school projects had not ‘failed’ were four factors: i) tight budgets and timescales ruled out the use of slack resources to mask unresolved conflict, what (Cyert and Mark 1963) call ‘quasi-resolution of conflict’; ii) real obstacles to use strategic ambiguity for creating space for incompatible goals (Jarzabkowski et al. 2010, Denis et al. 2011)—agreeing one-off strategic design choices was a prerequisite to implement a project; iii) limited chances that government officials could use authoritarianism to impose their choices since schools are powerful players in local politics (Ouchi 2003); and iv) third-party accounts that at national level the school building program was ‘failing’, and thus about to collapse.

And yet, there are examples of extreme pluralistic settings where stakes are high and slack scarce that have done well in the public eye. Their success has been traced back to a complex set of organizing structures and shared rules—this is the core claim of polycentric commons governance theory (Ostrom 1990, 2010), a research stream rooted in political science. Vincent Ostrom (1972) first defined polycentric governance as a pattern of organizing where self-interested actors order their relationships through a nested structure of shared rules and centers of delineated decision-making power with capacity for mutual adjustment and local variation.

The theory was further developed by Elinor Ostrom (1990) after studying extreme pluralistic settings such as police forces in Indiana and water resource management in California. In agreement with management studies, commons theory argues that governing collective action is a struggle (Dietz et al. 2003). But the theory is optimistic: if the claimants to a shared resource work out a set of reasonable structures and rules that delineate their own authority and create flexibility to cope with local variation, cooperation can ensue. Ostrom (1990) called this form of organizing ‘polycentric commons governance’. In this structure, shared resources become ‘common-pool resources’ because they can be used by many actors with rivalrous objectives.

Pluralistic projects fit within the boundary conditions of polycentric commons governance: the theory is informed by pluralistic settings where authorities and their constituencies interact at various institutional levels; stakes are high (uncontrolled self-interest destroys the shared resource), and slack is scarce—collective action is constrained by fixed deadlines (due to natural or political cycles) and tight budgets. The potential of prescriptions flowing from this theory to illuminate our problem led to an intuition that it could be a useful lens for our exploratory study.

We chose to undertake case research because of its potential to enable researchers to reveal the complexity in social settings, to study interconnected events longitudinally, and to explore new ideas in comprehensive ways (Eisenhardt and Graebner 2007, Miles and Huberman 1994). But before we could use commons theory to guide case research, it was necessary to first extend it to strategic planning, a deductive step (Gil and Baldwin 2013). This step, presented in the ensuing section, establishes how strategic *design* choice (the choices that define the scope) can become a common-pool resource and be subjected to polycentric commons governance.

The case research that follows using this theoretical perspective offers three contributions. First, we argue that strategic design choices can indeed qualify as an Ostrom’s (1990) common-pool resource and be subjected to polycentric commons governance. Commons logic can emerge under extreme pluralism if the authorities promoting the project opt to share decision-making power—including *veto power*—for one-off strategic design choices with the key stakeholders.

Second, this study illuminates two clusters of mutually reinforcing organizing structures and shared rules that are critical to sustain the pluralistic project organization. One cluster aims to preempt too many strategic disputes from emerging, and the other to reconcile disputes that emerge due to interdependencies between multiple strategic choices. And third, this study reveals nuances in the performance of this complex form of organizing a pluralistic project. The main point is that performance is adaptive. Adaptation is necessary to accommodate variance in the stakeholders’ local goals and wherewithal without overly sacrificing the promoter’s own goals.

The remaining of this paper is structured as follows. First we combine management studies on pluralism and commons literature to formulate the theoretical perspective guiding case research.

THEORETICAL APPROACH TO STRATEGIC CHOICE IN PLURALISTIC PROJECTS

The focus of this study is governance of strategic planning under pluralism, and thus structures and rules that constrain and enable strategic choice. We draw theoretically from Ostrom (1990)’s tradition to look at the institutions or ‘rules of the game’ (North 1990) that sustain collective action. This approach complements management studies on how communication and symbolic devices influence strategizing under pluralism along the tradition of looking to strategy as a practice (Jarzabkowski 2005, Jarzabkowski et al. 2010, Whittington 2006, Denis et al. 2011). The complementarity is logical as both bodies of literature assume that pluralistic settings are

politically-charged. Hence we organize this review by first summarizing the political process of strategizing under pluralism; then we examine complications that arise in a project context; and finally discuss how Ostrom's optimistic ideas can enrich this debate.

The political process of strategizing in pluralistic settings

Pluralistic settings, also called 'value-rational' (Satwo 1975) or 'professional bureaucracies' (Mintzberg 1979), are challenging for would-be strategists. Reconciliation of conflicting goals by fiat is not possible when power is diffused and work processes are knowledge-based (Denis et al. 2001). Strategizing under pluralism is thus inherently a political activity (Jarzabkowski and Fenton 2006). Because things seldom occur according to plan, pluralistic settings are associated with concepts such as 'organized anarchy' (Cohen et al. 1972) and 'loose coupling' (Orton and Weick 1990). Cohen et al. (1972) use the 'garbage can' metaphor to refer to the disassociation between problems, solutions, and choice opportunities. Studies in the health care sector by Denis et al.'s (2001, 2011) show more coupling between problems, solutions, and opportunity, but still conclude that strategizing is a challenge, and thus argue leaders deserve 'sympathy not blame'.

Three conflicting forces are behind the leadership challenge: i) stakeholders expect the leaders to spell out an unambiguous vision that convinces them to commit resources (Stone and Bush 1996); ii) forceful leadership is incompatible with social approval, and thus the leaders need to keep the goal vague to sustain legitimacy by the approval of the led (Denis et al. 2011); and iii) the environment expects leaders to limit the number of concessions to sustain the credibility and external legitimacy for the pluralistic organization (Stone and Bush 1996).

This seemingly impossible leadership task has spurred research on rhetoric and symbolic devices that help the leaders strategize and keep the organization afloat. One device is strategic ambiguity which is enacted through equivocal language, postponement of decisions, and commitment to unrealistic goals (Denis et al. 2007, 10, Jarzabkowski and Fenton 2006, Jarzabkowski et al. 2010). Ambiguity creates space for conflicting goal interpretations and thus complements efforts to align interests through interaction and communication (Hargrave and Van de Ven 2006). But ambiguity can confuse the recipients of the discourse and creates a risk of inaction and reversal (Abdallah and Langley 2014). To neutralize the negative effect of ambiguity, leaders can invest in 'reification'. These practices aim at assigning symbolic value to continued involvement and making it hard for participants to withdraw without losing face, for example, by requiring signatures and enthusiastic discourses (Denis et al. 2011).

Discursive practices aside, reconciling conflicting goals when power is diffused is often a matter of time. Consensus is hard to rush because holding lengthy talks is needed to allow actors to make sense of complex problems and coordinate collective action (Susskind and Cruikshank 1987, Gersick 1994, Thomson and Perry 2006). Denis et al. (2001) study of the health care sector, for example, shows leaders need time to become embedded in the organization and gain the trust of powerful constituencies. Time is also needed to co-produce creative solutions that resolve the issues and more so the more extreme pluralism is—for example, multiple scientific communities needed 20 years to co-produce the ATLAS particle detector (Tuertcher et al. 2015); and 40 years were needed to construct a global, shared climate change logic (Ansari et al. 2013).

The long timescales for strategizing under pluralism create a real risk of inaction. In many cases, inaction is rooted in what Langley (1995) calls "paralysis by analysis", a notion that refers to how powerful people who do not quite trust one another are motivated to use rational means to

convince others albeit the risk of indecision if evidence is contestable. In a time-bound project context, ensuing contestation leads to a risk of project failure as we discuss next.

The Politics of Strategizing in a Pluralistic Project Context

Strategic plans matter to create legitimacy for an organization and its strategy with external stakeholders (Langley 1995, Stone and Brush 1996). In a pluralistic project, a major challenge is to co-produce plans that align scope with committed resources and environmental constraints (Clegg and Courpasson 2004). If the project leaders succeed to do so, they create a perception of project ‘success’. If the project leaders fail, others can judge their behavior as inappropriate which puts at risk their long-term survival in a leadership position (Denis et al.2001).

Public infrastructure projects are particularly vulnerable to ‘fail’. These capital-intensive projects impact many stakeholders and take many years to plan. Designing structures to govern strategic planning is thus a complex endeavor (Clegg et al. 2002). A long planning horizon in a context imbued in pluralism and punctuated by elections provides plenty of opportunity for defections (or threats of) and reversals. This makes project leaders vulnerable to succumb to passive positions, and undo strategic choices to please their constituencies, leading to escalating indecision (Denis et al. 2011). Alternatively, if scrutiny lacks and slack is plenty, leaders can find it tempting to let scope creep for neutralizing conflict and self-aggrandizement, and use biased information and sunk cost fallacies to justify the actions (Ross and Staw 1986, Staw 1981).

The poor normative and statistical record of pluralistic projects has fueled two views in the projects literature. Morris (1994), for example, traces poor performance to leaders’ decisions to rushed strategic planning; and Flyvbjerg et al. (2003) suggest leaders suffer from optimism bias at best and misrepresent strategic plans at worst. Both studies choose to adopt a third-party perspective of the problem. In contrast, looking to the problem from the inside, Miller and Lessard (2001) argue that pluralistic projects cannot be planned reliably; and Pitsis et al. (2003) trace the success of a pluralistic project to the empowerment of its leaders which had the chance to gradually co-construct a ‘future perfect’ strategy as opposed to get locked in rigid plans.

The two views are difficult to reconcile because they look at different facets of the same problem. And yet, they can potentially be reconciled if we cast a wider net over the phenomenon to capture a wider range of actors that influence strategic choice. For commons theorists, for example, the wider concept of polycentricity is central to the study of extreme pluralistic settings. But how can we extend commons governance to strategizing in pluralistic projects and enrich this debate with Ostrom’s optimistic claims? This is the focus of the next section.

Extending polycentric commons governance to pluralistic projects

At the heart of commons theory is a symbiotic relationship between a common-pool resource and commons governance (Ostrom 1990). Common-pool resources are shared resources that are open to multiple claimants with rivalrous goals. Classic examples are fisheries or pastures owned by a collective. If governance is fragile, the risk is real that individual claimants over use the resource for their own benefit, leading to a tragedy of the commons (Hardin 1968).

But Ostrom’s (1990) work is optimistic. It claims that even extreme pluralistic settings are potentially sustainable. A prerequisite is to create a ‘polycentric’ governance structure, this is to decentralize decision-making authority across nested centers of decision-making power with capacity for mutual adjustment and local variation—an idea that echoes Orton and Weick (1990)’s idea of creating loosely-coupled systems to attenuate conflict. In a robust polycentric

structure, high-level authorities limit their interference to the design of a ‘constitution’; at a lower level, where most collective action occurs, constituents can self-create their own rules.

The idea of creating a polycentric commons to govern strategic planning is interesting since decentralization helps organizations to interpret situations and take action that is correct (Perrow 1984). It also helps to elicit ideas about how to solve a problem as relevant knowledge often resides in those closed to the problem; incumbent-driven processes also lead to higher levels of satisfaction among participants (Diehl and Stroebe 1991). Research also suggests that commons logic can emerge outside the world of natural resources; for example, firms self-regulate to protect an industry reputation violating legal frameworks (Barnett and King 2008). But how can strategic choice conflate rivalry and low excludability, and become a common-pool resource? We tackle the issue of rivalry first for one class of strategic choice—strategic *design* choice.

Rivalry of Strategic Design Choices in a Pluralist Project

Strategic *design* choices are a class of strategic choice. In a project, they specify the outcome (scope) that people intend to implement. Inflationary consensus (Denis et al. 2011) occurs when agreed scope is not commensurate with the committed resources. Then, in implementation, leaders either ditch scope or let the targets slip—either way, underperformance perceptions ensue. Infrastructure projects are particularly challenging for strategic design choice because the outputs are one-off assets which many actors will share in use. Since these actors rarely have the same goals, one actor’s preferred design choices will preclude another’s, and high rivalry ensues.

Three factors exacerbate the rivalrousness of strategic design choice. First, if project budgets are tight and fixed, what is spent on one design choice cannot be spent on others, and claimants with conflicting goals must perforce compromise. Second, if timescales are tight due to electoral or regulatory cycles, people will lack sufficient time to co-produce consensual design choice. Third is the longevity of strategic design choices. When the assets are long-lived and strategic choices are hard to reverse, it is harder for people to give ground when negotiating trade-offs.

Low Excludability of Strategic Design Choices in a Pluralistic Project

Excludability refers to the ease with which potential claimants can be prevented from accessing a shared resource. Whilst rivalrousness is largely determined by the properties of the resource, excludability is determined by a combination of human actions (such as locking a door), laws, norms, and conventions (Ostrom 1990).

In a pluralist project, excludability from influencing scope is largely a function of who controls the resources critical for the scheme to forge ahead. In public infrastructure projects, the promoter/financier and land use regulators (e.g., local government, courts) share rights ex-officio to influence scope. Hence excludability from strategic design choice is somewhat low. Yet the project promoter keeps some discretion as to who else should participate. If the promoter opens decision-making to future user groups, it gets difficult to exclude them later on if goals turn out incompatible without breaking one’s word. Under these circumstances, strategic design choices conflate low excludability and high rivalry, and thus qualify as a ‘common-pool’ resource.

A Polycentric Commons approach to Govern Strategic Design Choice

We argued that strategic *design* choices can in theory qualify as a common-pool resource. But a common-pool resource and commons governance are two sides of the same coin. How can project governance enable strategic design choice to become a common-pool resource?

The basic idea of polycentric commons governance is to create a nested structure of shared rules that encourages self-interested claimants to the resource to cooperate. At the highest level, the authorities write a constitution that defines the legitimate scope of action for the lower-level groups. Its scope must be substantive, offering real possibilities of local variation. At an intermediate level, authorities and local claimants work out a set of collective rules; and at inner levels of action, rules are self-created by lower-level claimants who commit to respect the high-level rules. For example, users of California water basins self-regulate but must respect the state and federal laws (Ostrom 1990). Likewise, the Carte di Regola that self-regulates the use of pastures still needs to be approved by the regional governments in the Alps (Ostrom 2005).

Decentralized governance and bottoms-up rule-making are policy choices that are received with skepticism due to the risk of free riding and uncooperative behavior (Libecap 1989). Empirical accounts also reveal that promoters of pluralistic projects are skeptical of decentralizing governance (Hall 1981, Morris 1994, Miller and Lessard 2001, Flyvbjerg et al. 2003, Gil and Tether 2011). Promoters prefer to appoint an agent who consults broadly. Still, promoters often see other claimants to the scope as ‘external’ actors, not development partners. But external stakeholders rarely give up fights to ‘shape’ (Miller and Lessard 2001) the strategic design choices, and indeed they often win. Hence a centralized organizational structure to govern strategic design choice invariably struggles to produce reliable strategic plans.

Commons theorists would encourage the project leaders to decentralize governance. This idea raises intriguing questions. Ostrom (1990) offers a set of design principles to create a robust commons governance structure. These principles are correlated with the success of commons governance although no single principle is either necessary or sufficient. But how would the principles translate in project terms? And how can robust governance contribute to achieve cost and schedule targets, and thus meet third parties’ expectations without disenfranchising stakeholders? We next discuss the methods and the setting used to tackle these questions.

RESEARCH METHOD, SETTING, AND SAMPLE

This study was sparked by reports of a successful public infrastructure project. The setting was the award-winning¹ £450 million Manchester Building Schools for the Future (BSF) program, which was part of a £45 billion program to modernize 3,500 high schools in England. The grand idea behind the national program was to develop innovative school buildings to accelerate the implementation of national policies aimed at transforming education. The Council bid for funds was on the same page with national policy. Furthermore, the Council used its track record in project delivery² to persuade government to let it govern the program in its own way.

As we learned about both the Council’s inclusive approach and ensuing governance struggle, an intuition emerged that commons theory could be a good lens to guide data collection and

¹ In 2010, the Council’s ‘innovative, inclusive, and outcomes-focused approach’ received the Local Authority of the Year award by the British Council for School Environments

² The Council had regenerated the city center after the 1996 IRA bombing, and delivered the infrastructure to host the 2000 Commonwealth Games

analysis. To take forward this idea, we had to extend Ostrom's ideas to strategic planning, a deductive step presented above. Another step was to gain access to the project leaders.

We gained access to the field late in 2008 at the end of strategic planning for the first batch of 11 school building projects (the Council bid for funding in 2006 to build 24 new schools by the end of 2012 in two batches). In 2008, the Council officials admitted that governance had been a struggle. Still all projects were reportedly on target (we discuss actual performance later) and all actors remained committed to the decentralized approach. This fact was significant since, at national level, cost and time overruns had turned the BSF program into a political football.

To examine in more detail the dynamics of strategic choice and investigate clear measures of performance, we embedded a unit of analysis in our case study (Yin 1984 p.42). Our diverse and polarized sample (Siggelkow 2007) of school projects varies in the rivalry in strategic design choices. Specifically, it includes schools that were excited with the government's innovation agenda and others that were not. It also includes schools operating in different contexts: secular vs. faith-based³ and free-standing vs. co-located with a primary or Special Educational Needs school. Schools with multiple constituencies had more needs for space than assumed by government regulation, which put more pressure on the budgets. Table 1 summarizes the sample.

...<Insert Table 1 here...>.

Data collection

We triangulated several data sources to improve the robustness of the insights (Jick 1979, Miles and Huberman 1984: 234). Triangulation provided more and better evidence along two dimensions. First, we collected data through interviews, archival documents, and presentations to overcome bias in data sources (reliability). And second, we interviewed different participants including government officials, teachers, and consultants to tap different domains of knowing the phenomenon (validity) (Van de Ven 2007).

The core of the fieldwork spanned four years so quantitative data on actual performance were available—some data was considered too sensitive to be shared before the end of the program. Overall we undertook 45 interviews (each lasting up to two hours and all recorded and transcribed) with school staff (#24), council staff (#14), and design and build consultants (#7). In addition, we conducted six formal interviews whilst given a tour of the new facilities by a member of the senior faculty. We also invited three Council officials to give talks about the program and stay for lunch, and took comprehensive verbatim notes during their visits. Finally, we reviewed 151 documents and combed through news on the local and national press.

Specifically, for each building project, the internal documents included the school vision, the design brief⁴, schematic plans and cross-sections, and project reports. Periodic newsletters uploaded on the schools' websites and the Ofsted reports enabled to understand the ethos of each school. Other documents were Council reports, newsletters and press releases, and minutes of

³ Faith-oriented schools are state-funded but voluntarily aided by a religious organization that owns the school's land.

⁴ A design brief summarises the requirements, and form the basis for the architects to produce detailed drawings

Council top management meetings. These documents allowed us to verify the project outcomes and cross-check the respondents' accounts of the rules governing strategic design choice.

The main source of external documents were Teachernet.com and Partnerships for Schools (PfS⁵)—two websites decommissioned after the new national government shut down the BSF program in 2010; other external documents included contemporaneous design manifestos and standards published by professional bodies and think-tanks. The external documents helped to cross-check the respondents' accounts. In addition, articles in the press and Parliamentary reports illuminated the interplay between the Manchester BSF program and national politics.

For purposes of internal validation and to overcome inherent biases (Strauss and Corbin 1998), we self-arranged the interviews with school staff including senior teachers, typically the head teacher, deputy head, and faculty heads.⁶ To avoid potential bias (Podsakoff et al. 2003), we proffered to sign a confidentiality agreement. But perhaps as an indictment of commons logic no one saw a need for it—people said they wouldn't tell 'us' anything that they had not told them'.

Data analysis

Extending Ostrom's ideas to strategic planning under pluralism was a deductive step inspired by theory and which created a cognitive lens to approach our site. The ensuing case research was inductive and inspired by data. The combination of a deductive step with induction can be useful to gain insight from data without denying or reinventing existing concepts (Denis et al. 2011). During the analysis, as we learned more about the governance struggle and actual performance, we also began to look at literature in strategic planning under pluralism (Denis et al. 2001, 11, Jarzabkowski et al. 2010) in search for ideas useful to sharpen our argument.

The analysis followed an iterative process between data collection and theory development. The interview protocol included the questions: 1) which strategic disputes emerged during strategic planning; 2) what were the causes; 3) how were the disputes resolved; and 4) how happy participants were with the outcomes? Our initial cognitive lens led us to search for structures and rules that enabled and constrained strategic choice. After an initial pass sifting through raw data and populating the sensitizing categories with data excerpts, the coding was verified by enlisting the help of one scholar knowledgeable of the research. The main outcome of this first step was a set of first order themes that illuminate the sources of strategic disputes, the structures and rules instantiating governance, and critical dimensions of project performance.

As we engaged into further analysis to understand what the rules and structures were trying to accomplish, we gradually simplified and refined the categories. This phase led us to cluster the first order themes into more abstract categories: i) common-pool resource; ii) polycentric structure, ii) dispute preemption, iv) dispute resolution; and v) adaptive performance. The result is a model that links robust polycentric commons governance to adaptive project performance.

⁵ PfS was a Building Schools for the Future delivery agency owned and funded by the Department for Education

⁶A "head teacher" is the same as the "principal" of a U.S. secondary school; a "head of faculty" supervises the curriculum and teachers in a given subject area, for example, math, history, science

During the research process we followed Langley (1999)'s recommendations to draw diagrams and tables to sharpen the insights and reveal the connection between the argument and data. Interviewing multiple individuals at different times helped to develop a more reliable theory (Miller et al. 1997). In turn conducting basic measurements on the final drawings (explained later) provided a quantitative assessment of how innovative the outcomes were. The research continued until we reached data and theoretical saturation (Strauss and Corbin 1998), and thus got clear that collecting more data on other projects would not change the argument.

ANALYSIS AND FINDINGS

We structure the analysis by first exploring the transformation of strategic design choice into a common-pool resource. We then discuss the emergence of a polycentric structure, and trace the perception of a successful project to two clusters of organizing structures and to adaptive performance. Figure 1 summarizes the logic of the argument. On the left side of Figure 1, we show the theoretical constructs of commons governance. It was this cognitive lens that led us to uncover the first order themes that illuminate the governance of strategic design choice.

<Insert Figure 1 about here>

Transforming strategic design choices into a common-pool resource

When we started the fieldwork in 2008 the national BSF program fitted like a glove to our understanding of how pluralistic settings exist between reification and ambiguity (Denis et al. 2011). The UK government claimed that BSF was the 'greatest school renewal program in British history'⁷, producing 'the best equipped schools in the world for 21st century learning'⁸. But for a design watchdog, most schools were 'mediocre' or 'not good enough'; and an audit reported one-year average delays in strategic planning and 16-23% cost increases (NAO 2009). The opposition picked up on this report to argue BSF was 'in danger of descending into chaos'⁹.

When the opposition ascended to power in 2010, it shut down the BSF program; the new government cited widespread cost overruns and delays to justify cancelling 55% of 1,643 schemes under strategic planning; in total, only 20% of the 3,500 targeted schemes were completed. The change of policy did not affect our research site which was performing well in the eyes of government and the public eye more generally; by 2010, the Council had completed strategic planning for all the projects and opened the first school buildings reportedly on target.

Our site was clearly pluralistic. The Council bid for funds committed to the national government ideas around innovative school buildings, and thus to adopt open floor plans and state-of-the-art science labs (DfES 2003); in addition, strategic design choices could not violate national regulation that stipulated the minimum areas for different spaces; and the Council itself had a sustainability agenda and was interested in building 'green' schools to spur this agenda.

⁷ Booth, R., Curtis, P. (2008). Design threshold set for new secondary schools. *The Guardian*, 18 September

⁸ Blair, Tony (2004). Building Schools for the Future factsheet. Friday, 14 May

⁹ Lipsett, A. (2008). School building programme a failure, say Tories. *The Guardian*.

Pluralism was exacerbated after the schools got equal rights in strategic planning, a decision that we traced to two factors. First, all the schools in the first batch had been praised by Ofsted, the agency that inspects schools—for the Council, the competence of the faculties gave them legitimacy to influence strategic planning. And second, the Council post of Chief Education Officer was unfilled for reasons unrelated to the BSF program. One level up, the Director of Children Services was too busy to get involved which created a power vacuum; one official said:

We ... could sack the head teacher and replace the heads of faculties, but that wouldn't be democratic. We don't work that way. ... We work on the basis [that] these people ... [are] capable, they're there to improve attainment. If they become embattled and you give them a building with no choice, that doesn't empower people to deliver better results.

The different participants had, however, conflicting goals. For the schools, the priority was more space; green features were but a 'nice-to-have'; and apart one exception (discussed later) most schools had not bought into the national innovation agenda. Rather, most faculties favored traditional spaces (closed classrooms, corridors, old-fashioned labs) which they view compatible with pedagogical innovations around project- and personalized learning; one official explained:

There was little time to educate schools... we [Council] weren't working for the same goals so we spent time arguing about designs... teachers weren't at the same wave length, they were in the dark ages... they thought they were masters of the universe, they didn't want to be fettered

Whilst the leadership constellation faced conflicting goals, each school could only have one building; or put it in theoretical terms, strategic design choices were 'non-decomposable' (Simon 1962). Hence high rivalry ensued over one-off design choices. Excludability of participation in strategic planning was also low. On the one hand, the Council had pledged to stay within the government mandate; on the other hand, the Council had given the schools power to veto the plans—in other words, strategic design choices had become a de facto common-pool resource.

Commons theory posits that sustaining a large pluralistic arena requires polycentric governance. This claim offered the starting point to probe into the Manchester governance.

Creating a Polycentric Governance Structure

In a 'polycentric' governance structure not all decisions are up for grabs by every claimant. Rather, authority is decentralized across a nested structure of multiple centers of decision-making and power. Our analysis suggests that the governance of the Manchester BSF case was polycentric. Figure 2 illustrates how the authority over strategic planning was distributed.

<insert Figure 2 about here>

First, BSF was the brainchild of central government, the organization which self-formulated the superordinate goal and developed the formula to set the budgets and timescales. Second, the Council was more than just a government's agent. It was the Council's job to procure and contract with architects and builders, and give planning consent; the Council had also planning authority to impose 'green' targets. And third, the Council committed to share the authority over the scope with the schools, and it was politically unviable to go back on its word.

The enactment of a polycentric structure to govern strategic planning in a public infrastructure project requires, however, relaxing Ostrom (1990)'s precept that interference of authorities makes governance fragile. In our case, it is logical that the national government, the supplier of finance and a legitimating public discourse, wanted to influence scope—'schools are

a political input if you will...there are politicians involved every time new schools are being built', said a seasoned head teacher. The Council as local authority also had a legitimate right to influence scope since it was accountable for school performance, project performance, and asset management. Hence the interference of these two authorities over strategic planning does not evince governance fragility, but a pluralistic project. The question that ensues is how this polycentric structure avoided project failure. We start by looking at how it tried to avoid conflict.

Preempting Emerging Disputes in Strategic Planning

Commons theory suggests that robust governance needs boundary demarcation, monitors, and sanctions. In this section we explain how these ideas illuminated three 1st order sets of organizing structures to encourage cooperation that we then clustered under dispute preemption.

Clearly defined boundaries across nested levels

The delineation of authority in the Manchester program goes beyond the demarcation endemic to a polycentric governance structure. At the highest level, central government set cost and schedule targets as well as scope expectations. But having set the high-level performance targets, the government deliberately chose not to further participate directly in strategic planning.

At a collective choice level below, and with the consent of national government, the Council leaders—including nine politicians and an apolitical team of Directors—chose to open up strategic planning to schools. But the Council also delineated the authority of each school to their building; one school could not interfere with planning for another school; furthermore, the Council was democratic up to a point—local communities and pupils would be only consulted. The schools found the budgeting rules hard to stomach, but nonetheless all agreed to respect it:

We're told there are £14m for the new build based on the formula. But the formula is massively flawed. It has been in place forever. The formula doesn't take into account differences between mainstream and specialist schools.....Everyone knows these flaws but the money has already been allocated, and no one is going to do nothing... it isn't fair (Newhall head teacher)

Authority to influence strategic design choice was further delineated at the operational level below. Each project had a designated 'design steering group' made up of the schools' governors and senior faculty, Council staff, and contractor employees. Each group, with a core of about 10 people regularly attending, met roughly once every two weeks for approximately a year to develop a strategic plan; the meetings were closed and took about three hours. The groups were expected to follow the high-level rules explained in a Starter Pack. But they had free rein to set up rules self-governing day-to-day interaction, notably how frequently to meet and where, who should attend meetings, how to carve the project budget, and how to reconcile conflicting goals.

The analysis suggests that self-demarcated authority at steering group level further helped to preempt dispute. Hence the Council staff had the idea, and all schools agreed (although some had mixed feelings about it) that Council staff should keep the upper hand over technical issues. Council staff then ruled that to bring the building life-cycle costs down: i) components such as doors and windows would be chosen from a 'kit of parts'; and ii) all schools should have open ceilings. The idea of standard parts was consensual since the kit offered many options, but not the aesthetics of open ceilings—some teachers disliked it ("It's the maddest idea", said one), but others had no issues ("We'll probably blink them out after a few days", noted another).

In reciprocation, the Council staff deferred to the schools over design choices that would interfere with education. This was not an easy compromise since some schools were dubious or downright resistant with the innovation agenda. Some insisted that the government ideas were not grounded in evidence, a key factor to facilitate innovation in pluralistic settings (Ferlie et al. 2005). Many school leaders also dismissed examples in which innovations had worked, arguing that the Manchester reality was a far cry from leafy Copenhagen neighborhoods¹⁰; one head said:

Planners wanted to push us into open plan labs...our head of science didn't dismiss the idea but was quite flabbergasted. We resisted that ..our science results have been exceptionally good. So why change for the sake of change? We don't want our children to be experiments

By far the most resistant school was David, the school with the highest academic performance. Here, the faculty leaders categorically ruled out the innovation agenda. Hence boundary demarcation succeeded to preempt many disputes but not all as we discuss later on.

Monitoring and Sanctioning

Commons theorists assume that some individuals have propensity to break rules if they believe they can get away with it. To prevent a vicious cycle of rule-breaking and conflict, commons theory claims that robust governance requires monitors and sanctions. This claim led us to uncover two sets of organizing structures that also contributed to preempt disputes.

In the Manchester case, monitors and sanctions existed at two levels: *third party reviews* of strategic design choice and *early involvement of implementers*. First, the UK government appointed a watchdog, CABE, to check the concept design during two “health-check sessions” that could last up to four hours. Money to finance implementation would not be released unless CABE gave the go-ahead. The possibility of CABE forcing *iterations* was a potential sanction that encouraged participants to think twice if they planned to deviate from the national mandate.

And second, the Council appointed builders (the ‘implementers’) to check if the agreed scope was aligned with the targets. The builders’ contract stipulated a target cost with a pain-gain shared mechanism: If implementation overshot the planning targets, both Council and builders would share the burden. The builders operated under slim margins, and thus this sanction gave them an incentive to denounce any commitment to unrealistic goals that could cause conflict later on. Still many strategic disputes emerged, and we next explore how they got resolved.

Resolving Emerging Strategic disputes

Under pluralism, strategizing is inherently political and thus some conflict is inevitable. Management studies show strategic ambiguity and slack help to mask unresolved conflict (Denis et al. 2011, Jarzabkowski et al. 2010). In turn, Ostrom (1990) suggests that sustainable collective action requires mutual adaptation, affordable conflict-resolution structures, and proportionality between the costs and benefits for each participant. The three latter claims led us to uncover two first order sets of rules that we subsequently clustered under dispute resolution.

¹⁰ Hellerup school in Copenhagen is an open-plan school that was often cited as a model by proponents of the transformation agenda. See, for example, CABE (2009).

Adapting High-level Rules to Local Circumstances

The high-level rules in the Manchester case were hard to modify, but some self-organizing actions enabled to adapt the rules to resolve local issues. These actions do not suggest that the ‘teachers carried all the cards’ as one respondent claimed. But they show adaptation by *relaxing project targets, flexible interpretation of targets, and safeguarding competing choices*.

An example of relaxing project targets occurred in the realm of budget overrides. First, with the compliance of the Council leaders, the steering groups could bid for extra Council funds to finance green elements (e.g., bio mass boilers, rainwater harvesting). This occurred after the schools refused to sacrifice space for green elements. The design steering groups could also relax the budget constraint *if* the school self-funded the excess. In the case of David, for example, the school raised funds to refurbish old premises which had been earmarked for demolition. Newall, in turn, got a loan from the Council to finance a roof over the courtyard, a priority for the school:

We were able to overcome them [budget constraints]...because our budget is healthy, because we’re a successful, thriving school...we wouldn’t have that [roof over social space] unless we were able to raise the funding ... in some terms it’s immoral we’ve to (Newhall deputy head)

The interpretation of the mandate to build open spaces offers a second example of adaptation. Schools like Gorton were on board with the government ideas. But other schools categorically rejected them preferring instead a traditional layout. These disputes put the Council staff between a rock and a hard place. In the end, the leaders worked out a ‘creative solution’ (Denis et al. 2011) that allowed for traditional layouts insofar their economical reconfiguration in the future was safeguarded. This went beyond the use of contractual safeguards to mask incompatible goals (Denis et al. 2011). Specifically, it required negotiating difficult trade-offs to invest in costly modular air-conditioning systems and no-load-bearing walls. These choices are instances of ‘design safeguards’, i.e., strategic design allowances built in to leave open a range of future scenarios in use (Gil 2007). The architect explained this logic for David:

What we tried to do is...to give them a building which has this flexibility, this potential...so they can take walls down...there are huge possibilities in that...We built that in the DNA...we balanced the particular needs of today, but built in flexibility for the future.

The adaptation of the high-level rules helped to resolve many disputes, but not all. Disputes rooted in mutually exclusive strategic design choices were particularly challenging. We explain next how the analysis of the most difficult disputes also suggests that dispute resolution involved postponement, rounds of face-to-face meetings, and a relationship of mutual deference.

Postponement, Face-to-face Interaction, and Mutual Deference

In a pluralistic setting diffused power precludes ruling by a dominant coalition (Denis et al. 2011). But how can defection be avoided when targets set ex-ante put pressure to make difficult decisions but the project participants are yet to converge? The analysis suggests that helping to hold people together under challenging situations were rounds of face-to-face talks, delays, and mutual deference. Deference involves postponement to create space for conflicting goals (Denis et al. 2011), but also recognition of each other’s authority to influence an indivisible outcome.

The cases of David and Abraham are telling. Both schools refused to sign off the initial plans proposed by the Council staff. The disputes were rooted in the lack of money to meet the

schools' goal not to end up with a smaller building. Facing an impasse, the Council staff in the steering groups had no choice but to escalate the issues. The head of Abraham recalled:

We were told we weren't cooperating...I then wrote [the Council] a hard letter saying that I wasn't being uncooperative. I was actually doing the authority's job for them, to safeguard the youngsters' needs and make sure they had a viable school for the future.

Our findings suggest the authorities heeded to both sides. In the David case, the dispute was resolved by co-locating the high-school with a primary school and combining two budgets—but forging this solution was hard and strategic planning got delayed one year. Resolving the dispute at Abraham was even more protracted to the extent that the Council staff in the steering group lobbied the school's governors to override the school's veto ('a dangerous time', said the head). When push came to shove, the governors sided with the faculty. For its part, the authorities did not press the issue further despite real worries with loss of funding. It then took two years of talks to forge a creative solution that passed by co-locating Abraham with a school for special education needs, which added £2m to the budget and made it possible to build a bigger school.

These extreme examples suggest the emergence of a relationship of mutual deference where all parties were respectful of each other's position. For better or worse, the schools were part of the problem and had become part of the solution. But this inclusive approach led to variance in local outcomes, and suggests that a deeper look at how well the program performed is in order.

Adaptive Performance in a Pluralistic Project

In pluralistic organizations performance evaluation criteria are normative and can be set by one or several actors without one being superior to the other (Raab et al. 2015). There is only agreement that achieving the goal and innovation are as important as the participants' individual satisfaction (Provan and Milward 1995, Ring and Van de Ven 1994). We built upon ideas to explore how the Manchester program performed. Table 2 summarizes the results.

<Insert Table 2 here>

The fact that the Council claimed the Manchester program was on target pleased the national government. And indeed, by 2012, all the 24 building projects (corresponding to 33 schools) had been delivered for £446.5m, a figure slightly below the £450m national grant awarded to the Council in 2006—"we must have done something right", said one Council official, "no one can be lucky 33 times". Both authorities were also happy that not a single school had defected. The school leaders estimated their input at more than 1,000 staff hours, with larger schools reporting a figure closer to 1,500 hours; school leaders found it frustrating to be called upon to work "for free". But sharing power over strategic design choices was enough of a benefit to entice the schools to free staff; as a Gorton teacher said, 'if it doesn't work, it's my fault'.

Still, aggregated results mask local variance and thus adaptive performance. First, there were local budget overruns such as David and Newall; they got masked because the schools made up for the shortfalls; green elements were also excluded from the budgets because they were financed by a separate pot; second, strategic planning for two projects (David and Abraham) was delayed; but both projects were in the first batch and there was slack to cope with the delays. Council officials also agreed strategic planning for the second batch was less complicated: a greater threat of losing funding if a scheme got delayed encouraged even more cooperation.

Third, there was variance in the extent schools were happy with governance and outcomes. A polycentric structure with capability for mutual adaptation created a lack of equitability. The leaders of Gorton were quite happy. But this school was fully aligned with the government's ideas. The leaders of David were also happy, but this school had the wherewithal to fund extras, and thus less need to compromise. In contrast, the leaders of a school like Mathews that lacked endowments were less satisfied; as one said, 'we're always robbing Peter to pay Paul'.

Fourth, there was variance in innovation. We assessed innovation by counting the number of modern labs and measuring the open spaces. As Table 2 shows, only Gorton embraced the government's agenda for modern labs and open areas; a school like Newall, for example, bought into the idea of open areas but ruled out modern labs; Mathews was the other way around; and the locus of conservatism was with the other schools. One Council staff said about the whole program: "[apart Gorton] what we've got sadly...is a number of 'new old schools'".

Variance in innovation also led to variance in the degree of satisfaction of the architects. Hence, the architects found schemes like Gorton very rewarding ("the heads were great, we're being exhorted to be transformational"), whereas other projects were less so ("if the school has its eyes closed, we'll deliver a more traditional design"). As for the two builders we could not find data at project level. But in surveys of Key Performance Indicators, both builders and Council officials expressed satisfaction with the commercial relationship. The builders still lodged many claims for compensation during project implementation as abnormal costs emerged related to asbestos, ground conditions, and temporary facilities. But as Table 3 shows, the risk provisions that the builders asked to be built in strategic planning proved robust enough later on.

In sum, in the grand scheme of things the Manchester program seems to have done well. But although we did not encounter evidence of the authorities playing favorites, performance was adaptive: there was no consistency in yielding innovation, not all projects were delivered within the initial targets, and there was inequality in the satisfaction of the local stakeholders.

DISCUSSION

We now return to our overarching research questions: which governance structures can help to reconcile conflicting goals with the targets in a pluralistic project? And how can they be created? In extreme pluralistic settings, power is diffused across actors with conflicting goals (Denis et al. 2011), and no 'dominant coalition' (Pettigrew 1973) has enough power to impose their preferences on others. Strategizing is thus inherently political (Jarzabkowski et al. 2010) and vulnerable to iteration, unrealistic consensus, and delays (Denis et al. 2011). And yet, for commons theorists, the leaders of these settings have reasons to be optimistic (Ostrom 1990).

The optimism of commons theory does not rely on slack resources (Cyert and Mark 1963) or strategic ambiguity (Denis et al. 2011, Jarzabkowski et al. 2010) to mask unresolved conflict. The optimism also does not hinge on plenty of time so participants can get embedded in the organization and engender creative solutions (Denis et al. 2001). Rather, commons theorists focus their attention on structures that encourage actors to cooperate. This perspective is thus complementary to management studies on the participation, communication, and symbolic devices that sustain pluralistic settings (Denis et al. 2011, Jarzabkowski and Fenton 2006).

Whilst communication and rhetoric devices were not the focus of this study, we could see how they were put to use in the Manchester program. For example, inviting politicians to open schools and inflated claims ('We've combined the latest thinking around teaching and learning

with innovative design', said a Manchester report) were quintessential reification practices. There was also ambiguity in defining an innovative school or a budget; and a bit of slack to accommodate delays with the first projects. But our focus here, inspired by views of structure and action as mutually influencing one another over time (Giddens 1984, Ostrom 1990), was to explore how governance was created, and how it constrained and enabled strategic planning.

Creating a Robust Structure to Govern a Pluralistic Project

This study reveals a set of structures that are consistent with robust commons governance. They are complex, but as Ostrom (2010) says, complexity is not the same as chaos. Complexity theorists too claim it is not a good idea to impose simple structures on complex problems: too many opposing forces, nonlinear relationships, and feedback loops cause simple solutions to backfire (Stacey 1995).

Central to the Manchester approach to governance is the transformation of strategic design choices into a common-pool resource. We trace this situation to the juxtaposition of 'non-decomposable' scope (Simon 1969) with institutionalized pluralism (exacerbated after the Council gave the schools veto power). The egalitarian orientation of commons governance is a species of democratic governance (Ansell and Gash 2008). But organizations with direct democratic forms of participation tend to face difficulties in scaling up and in managing complexity (O'Mahony and Ferraro 2007). In the Manchester program, the risk of chaos was mitigated by creating a polycentric structure that delineated authority over strategic planning.

A polycentric structure resonates with the idea of loose coupling to attenuate pluralism by segmenting work and allowing for professional autonomy (Orton and Weick 1990, Thompson 1967). In Manchester, project finance was the task of central government; managing project suppliers was the Council's job; and defining scope was a shared problem. However, the reciprocal interdependency (Thompson 1967) between scope and the other strategic choices made it necessary to create a 'negotiated order' (Pfeffer and Salancik 1978) to strategize.

The challenge facing the Manchester leaders was to co-produce a scope definition within a highly constrained solution space. One cluster of organizing structures was critical to preempt widespread disputes. Designing these structures was an exercise of 'collective leadership' (Denis et al. 2001). Hence the national government set high-level targets and created one monitor (design watchdog) and corresponding sanctions. Council leaders delineated each school's authority to their building, and introduced monitors (builders) and sanctions (pain/gain deals). And the steering group participants self-demarcated areas of scope that each party would control.

The interdependency between strategic choices led nonetheless to many disputes. In pluralist settings, strategic choices can be challenged at various levels (Denis et. 2001) and our case is no exception. Some schools' preferences for scope clashed with the Council's mandate. In turn, the Council's sustainability agenda was challenged a level above by the budget rule, and a level below, by the schools' priorities. Exacerbating the problems of pluralism was: i) the lack of slack to 'quasi-resolve' (Cyert and March 1963) disputes; and ii) difficulties to 'mask' (Denis et al. 2011) unresolved conflict because a defined scope was a pre-requisite to implement a project.

In agreement with commons theory, conflict resolution did not rely on interference by outsiders, a structure that creates a negative precondition for parties to self-cooperate and leads to fragile governance (Reilly 2001). Rather, the resolution of disputes relied on intense face-to-face

communication, relaxing performance targets, and mutual deference. The governance thus helped to create capacity for mutual adaptation, but this had implications to project performance.

Adaptive Performance in a Pluralistic Project under Polycentric Commons Governance

Sustainable commons organizations require proportionality between the costs incurred by each participant and corresponding benefits (Ostrom 1990). This idea creates a challenge when extended to a pluralistic project. On the one hand, it suggests that for a common logic to flourish, every project participant needs to cede a bit. On the other hand, project ‘success’ in the eyes of third parties requires that participants stay as close as possible to the initial targets.

The way this tension played in our case links polycentric commons governance to adaptive performance. Adaptation is a property of complex systems in which interdependent agents adapt their behavior in response to environmental turbulence (Carney 1987), as well as to interaction and learning from each other (Anderson et al. 1999). Adaptation is often the outcome of self-organizing (McDaniel 2007). As the agents interact, they adapt by co-creating new rules to govern behavior and decision-making, and use emerging knowledge (Beck and Plowman 2014).

In the Manchester case, the leaders faced a stable environment apart the national election. Adaptation was an act of self-organizing in response to the politics of strategizing. Adaptation led to variance: innovation only occurred if there was consensus; only some projects stayed on target; and some projects pleased everyone and others not. This variance resonates with Cohen et al.’s (1972) notion of ‘organized anarchy’. It also echoes with Shenhar and Dvir’s (2007) claim that companies should embrace ‘adaptive project management’, and thus should elevate the need to meet the expectations of customers above normative pressure to do things to target.

The added challenge facing the Manchester leaders was reconciling adaptive performance with environmental pressure to keep the program to target. In pluralistic settings, numeric targets fill a strategic void created by goal ambiguity (Denis et al. 2006). For the Council, staying within target was essential to gain credibility to survive a potential change in policy. And yet, the Council needed to attend to the schools’ interests. If a school defected, the Council would struggle to acquire their tacit knowledge of needs in use. Tacit knowledge is ‘sticky’ (von Hippel 1994), and could only be elicited and assimilated by having the teachers react to specific plans and explain face-to-face what they wanted. In the end, the schools’ wherewithal made a difference in their latitude to influence the outcomes and in their satisfaction with the program.

The Context for Project-based Polycentric Commons Governance

Our logic linking polycentric commons governance to adaptive performance is grounded in our case, but results from using a cognitive lens that extends beyond our case. It is thus plausible that this logic can extend to other projects. Our findings also echo Pitsis et al.’s (2003) ideas of how intense interaction allowed the participants in an Olympic infrastructure project to coalesce their differences around a ‘future perfect strategy’. But there is an important difference.

The notion of future perfecting presupposes that project participants are warranted freedom to plan. This idea resembles Beck and Plowman (2014) claim that collaboration can emerge as an outcome of self-organizing actions without a plan or a designated leader, a study grounded on the Columbia Space shuttle response effort. In marked contrast, polycentric commons governance accepts that the participants are locked in high-level rules that are hard to modify. These rules give leaders legitimacy to acquire resources and achieve a goal beyond an individual’s reach. But they can also be an obstacle to collaboration if they do not leave space for emerging needs.

If polycentric commons governance is robust, the structures and rules create enough space for self-organizing actions necessary for collaboration to flourish. Still, in a complex polycentric system, self-organizing actions occur in a highly constrained space. This creates a difficult balancing act between allowing for self-organizing actions to reconcile conflicting goals whilst delineating authority and setting boundaries about what is and is not permissible.

Hence it is fair to ask if polycentric commons governance could occur in a different project context. It is also fair to ask if our initial cognitive lens filtered out alternative explanations. In this section, we examine four contextual conditions that may have contributed to success of the Manchester program. These boundary conditions suggest opportunities for future research.

First, in our setting, technology and user needs were stable, a condition that is favorable for the effectiveness of ‘hybrid’ forms of governance between authority hierarchies and markets (Williamson 1996). Unstable requirements would create more pressure to relax targets. In airport projects, for example, the needs change rapidly due to technological progress and volatility in demand (Gil and Tether 2011). It thus remains indeterminate if a polycentric commons can reconcile evolving goals with environmental demands to keep a project on target.

Second, in our setting, strategic design choices were non-decomposable. But the Manchester program was modular, and the projects were loosely coupled to one another. System decomposability allows for decentralized decision-making without increasing managerial complexity (Orton and Weick 1990, Langlois and Robertson 1992). System decomposability also makes unpaid contributions of resources (as teachers did) less risky (Baldwin and Clark 2000). A main reason is that, in small groups, people struggle less to establish awareness and consensus on the part of others on joint and self-interest objectives (Galbraith 1973, Van de Ven 1976). Strategic planning of a more integral system involves more interdependent choice, and it merits further research if polycentric commons governance can still produce positive results.

Another factor that is a potential contributor to the success of the Manchester program is the goal. The participants disagreed on scope but the goal to rebuild dilapidated schools was consensual. Unifying goals help actors to explore constructively their differences and search for win-win solutions (Gray 1989); they encourage even strangers to cooperate (Beck and Plowman 2014). In contrast, controversial goals spur participants to ask for more concessions in exchange for cooperation, and amplify the fragility of collective leadership (Denis et al. 2001, Gil and Tether 2012). Without a shared understanding of the problem, the risk of inaction and bitter fights is then much higher as typical of ineffective collaborations (Lawrence et al. 2002).

Finally, a fourth condition that arguably contributed to robust governance is the quality of leadership. Dahlander and O’Mahony (2011) argue that decentralized decision-making requires leaders capable to coordinate work without appearing to take charge. We did not touch here on the leaders’ capabilities and personalities. But we found mutual respect amongst the Manchester leaders. The Council officials were admired for their history in delivering big projects; the school leaders’ competence was also recognized. It is unclear if polycentric commons governance can be enacted if the leaders do not see on each other enough legitimacy to influence strategizing.

CONCLUSION

This study offers several contributions to the literature. First it extends commons governance theory, a research stream that has received little attention in management studies, to strategic planning. Whilst designing structures to govern pluralistic settings is complex, it is an important

leadership task (Denis et al. 2011, Clegg et al. 2002). Here, we propose a model that traces a successful project to a structure consistent with Ostrom's claims of robust governance. This insight suggests that polycentric commons governance can be instantiated in a pluralistic project

Second, drawing on an in-depth case study, we illuminate the logic behind a set of intertwined structures and rules that help to sustain a pluralist project. One cluster of structures aims at preempting conflict, and thus at avoiding contestation over every single strategic choice. A second cluster of rules aims at resolving emerging conflicts by creating capacity for mutual adaptation. Taken together, these structures and rules enable strategic choice to adapt to local interests without losing sight of the third-party expectations that the project stays on target.

And third, this study extends strategy-as-practice literature to pluralistic projects. The strategy-as-practice perspective calls for fine-grained, longitudinal studies that illuminate the social accomplishment of strategy (Whittington 2006, Wooldridge et al. 2008, Jarzabkowski and Balogun 2009). The aim is to illuminate how the tacit knowledge and competence of multiple actors contributes to outcomes. Extant studies shed light on how ambiguity and reification enable strategic choice under pluralism (Jarzabkowski et al. 2010, Denis et al. 2011). But deep-seated norms that define a 'successful project' complicate the use of strategic ambiguity: if the plans are off the mark, the project fails; if the strategic plans are reliable, the project succeeds.

To circumvent existing norms, one practice available to project leaders is to avoid getting locked in strategic plans (Pitsis et al. 2002). But this practice is hard to enact if the system-level goal is ambiguous—under conditions of ambiguity, strategic plans are necessary to attain external legitimacy and secure commitment of resources (Stone and Brush 1996). This brings to the fore the role of governance. Strategizing is a political activity, but governance has political consequences too (Cyert and March 1963). Hence governance can undercut 'destructive politics' associated with power games and surreptitious backroom deals (Eisenhardt and Bourgeois 1989, Pfeffer and Salancik 1978). The governance of pluralistic settings is the focus of commons theory, but it was unclear how this research stream could enrich the debate on strategizing.

This study reveals a set of structures and rules that project leaders can choose to adopt to govern strategic planning. Strategizing under pluralism involves interactions and negotiations to reconcile different organizational value systems and mobilize multiple self-interested actors (Westley 1990, Whittington 2006, Jarzabkowski and Wilson 2002). In our case too, designing governance involved middle management at lower-level committees, elected leaders and top managers in Council boards, and the national bodies. This level of participation agrees with our understanding of the integrative effects of strategizing (Jarzabkowski and Balogun 2009).

In sum, we argue that polycentric commons governance can extend to pluralistic projects. We start by suggesting that strategic design choices can become a common-pool resource. We then uncover structures and rules that encourage cooperation and mutual adaptation. We show that polycentric commons governance enables to resolve conflicting goals whilst meeting third-party expectations, but leads to local variance in yielding innovation and satisfying stakeholders. And finally, we ask about boundary conditions. We identify potential to enact this approach if the requirements are stable; the system as a whole is decomposable; there is a unifying superordinate goal; and if the participants see in each other legitimacy to influence strategizing.

The design of governance is a strategizing outcome. If we accept strategizing is a skill that can be acquired individual and organizationally (Denis et al. 2007), project leaders can take inspiration from our study to design governance structures that fit with their particular contexts.

REFERENCES

- Abdallah, C. Langley, A. 2014. The Double Edge of Ambiguity in Strategic Planning. *J. Management Studies*. 31 (2) 235-64
- Andersen, TJ 2004. Integrating decentralized strategy making and strategic planning processes in dynamic environments'. *Journal of Management Studies*, 41, 1271–99.
- Anderson, P., Meyer, A., Eisenhardt, K, Carley, K, Pettigrew, A. 1999. Introduction to the special issue. *Applications of complexity theory to organization science* 10 (3) 233-236.
- Ansari, S., Wijen, F., Gray, B. 2013. Constructing a Climate Change Logic: An Institutional Perspective on the “Tragedy of the Commons”. *Organization Science*, 24 (4) 1014-1040.
- Ansell, C., Gash, A. 2008. Collaborative Governance in Theory and Practice. *J Public Adm Research and Theory*, 18 (4): 543-571
- Astley, WG, Fombrum, CJ 1983 Collective strategy: social ecology of organizational environments. *Academy of Management Review* 8/4:576-587
- Baldwin, C, Clark, K. 2000. *Design Rules, Vol. 1, The Power of Modularity*. MIT Press.
- Barnett, M.L, King, A.A. 2008. Good Fences Make Good Neighbors: A Longitudinal Analysis of an Industry Self-regulatory Institution. *Academy of Management Journal* 51 (6) 1150-70.
- Beck, T.E., Plowman, D.A. 2014. Temporary, Emergent Interorganizational Collaboration in Unexpected Circumstances: A Study of the Columbia Space Shuttle Response Effort. *Organization Science*, 25 (4) 1234-1252.
- CABE 2009. Designing Schools the Danish Way, *360°*, Issue 18 (Spring)
- Carney, MG 1987. The Strategy and Structure of Collective Action. *Organization Studies* 8, 341-62
- Clegg, SR, Pitsis, TS, Rura-Polley, T., Marosszeky, M. 2002. Governmentality Matters: Designing an Alliance Culture of Inter-organizational Collaboration for Managing Projects. *Organization Studies*, 23/3, 317-37
- Clegg, S., Courpassion, D. 2004. Political Hybrids: Tocquevillean Views on Project Organizations. *J. Management Studies*, 41:4: 525-546.
- Cleland, DI, King, WR 1968. *Systems Analysis and Project Management*. McGraw-Hill, NY.
- Cohen, MD, March JG 1986. *Leadership and ambiguity*. New York. McGraw-Hill
- Cohen, MD, March JG, Olsen, JP 1972. A garbage can model of organizational choice. *Admin. Sci. Quart.* 17(1) 1–25.
- Cyert, R. M., J. G. March. 1963/1992. *A Behavioral Theory of the Firm*. 2nd ed. Prentice Hall, Englewood Cliffs, NJ.
- Dahlander, L., O'Mahony, S. 2011. Progressing to the Center: Coordinating Project Work. *Organization Science*, 22 (4) 961-979
- Denis, JL, Langley, A., Rouleau, L. 2006. The Power of Numbers in Strategizing. *Strategic Organization*. 4 (4) 349-377

- Denis, JL, Langley, A. Rouleau, L. 2007. Strategizing in pluralistic contexts: rethinking theoretical frames. *Human Relations*, 60, 179–215.
- Denis, JL., Lamothe, L., Langley, A 2001. The dynamics of collective leadership and strategic change in pluralistic organizations. *Academy of Management Journal*, 44, 809–37.
- Denis, JL., Dompierre, G., Langley, A. Rouleau, R. 2011. Escalating indecision: between reification and strategic ambiguity. *Organization Science*, 22, 225–44.
- Diehl, M., Stroebe, W. 1991. Productivity loss in idea generating groups: Tracking down the blocking effect. *Journal of Personality and Social Psychology*, 61: 392-403.
- Dietz, T, Ostrom, E, Stern, PC. 2003. The Struggle to Govern the Commons. *Science* 302:1907-12.
- DfES 2003. *Classrooms of the Future. Innovative Designs for Schools*, DfES, UK
- Eisenhardt, K.M. 1989 Building Theories from Case Study Research. *Academy of Management Review* 14 (4) 532-550.
- Eisenhardt, K.M., Bourgeois, L.J. 1988. Politics of strategic decision-making in high velocity environments: Toward a midrange theory. *Academy of Management Journal*, 31: 737-770.
- Eisenhardt, K. Graebner, M. 2007. Theory building from cases: Opportunities and challenges. *Acad. Management Journal*, 50 (1) 25:32.
- Ferlie, E., F., L., Wood, M., Hawkins, C. 2005. The (Non) Spread of Innovations: The Mediating Role of Professionals. *Academy of Management Journal* 48(1) 117-134.
- Flyvbjerg, B., Bruzelius, N., Rothengatter, W. 2003. *Megaprojects and Risk: An anatomy of Ambition*. Cambridge University Press.
- Galbraith, JR 1973. Organization design: An information processing view. *Interfaces* 4(3) 28–36.
- Gersick, CJ 1994. Pacing strategic change: The case of a new venture. *Academy of Management Journal* 37(1) 9-45.
- Giddens, A. 1984. *The Constitution of Society*. Berkeley University of California Presss.
- Gil, N. 2007. On the Value of Project Safeguards: Embedding Real Options in Complex Products and Systems. *Research Policy*, 36 (7) 980-999.
- Gil, N., Tether, B. 2011. Project Risk Management and Design Flexibility: Analysing a Case and Conditions of Complementarity. *Research Policy*, 40, 415-428.
- Gil, N, Baldwin, C. 2013. *Sharing Design Rights: A Commons Approach for Developing Infrastructure*. Harvard Business School working paper, 14-025, January
- Gray B. 1989 Conditions facilitating interorganizational collaboration. *Human Relations* 38 (10) 911-936.
- Hall, P 1972. *Great Planning Disasters*. Berkeley, CA. University of California Press.
- Hardin, G. 1968. The Tragedy of the Commons. *Science* 162: 1243–1248.
- Hardy, C 1995 Managing strategic change: Power, paralysis and perspective. *Adv. Strategic Management* 12 3–30.

- Hargrave TJ, Van de Ven A 2006. A Collective Action Model of Institutional Innovation. *Academy of Management Review*. 31. 864-898.
- Hobday, M 2000. The Project-Based Organization: An ideal form for managing complex products and systems? *Research Policy*, 29 (7-8), 871-893.
- Hodgson, RG., Levinson, DJ., Zaleznik, A. 1965. *The executive role constellation*. Boston: Harvard Business School Press
- Jarzabkowski, P. Balogun, J. 2009. The Practice and Process of Delivering Integration through Strategic Planning. *Journal of Management Studies*. 46: 1255-1288
- Jarzabkowski, P. 2005. *Strategy as Practice: An Activity-Based View*. London: Sage
- Jarzabkowski, P, Fenton E 2006. Strategizing and Organizing in Pluralist Contexts. *Long Range Planning*, 39 (6) 631-648
- Jarzabkowski P, Sillince, JAA Shaw D 2010. Strategic ambiguity as a rhetorical resource for enabling multiple interests. *Human relations*, 63 (2) 219-248
- Jarzabkowski, P Wilson, DC 2002 Top teams and strategy as social practice. *J. Management Studies*, 37 955-77
- Jick, T. 1979. Mixing Qualitative and Quantitative Methods: Triangulation in Action *Administrative Science Quarterly* 24: 602-611.
- Langley, A. 1999. Strategies for Theorizing from Process Data *Academy of Management Review* 24: 691-710.
- Langley, A 1995. Between “paralysis by analysis” and “extinction by instinct.” *Sloan Management Rev.* 36(3) 63–76.
- Langlois, RN, Robertson, PL 1992. Networks and innovation in a modular system: Lessons from the microcomputer and stereo component industries *Research Policy*, 21 (4) 297-313.
- Latour, B. 1996. *Aramis or the Love of Technology*. Harvard University Press, Cambridge, MA.
- Lawrence, TB, Hardy, C, Phillips, N 2002. Institutional effects of interorganizational collaboration: The emergence of proto-institutions. *Academy of Management J.* 45 281–290
- Lawrence, PR., Lorsch, JW 1967. Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12 (1) 1-47.
- Libecap, GD 1989. *Contracting for Property Rights*. Cambridge University Press, UK.
- Lundin, RA, Söderholm, A. 1998. Conceptualizing a projectified society discussion of an eco-institutional approach to a theory on temporary organisations. In *Projects as Arenas for Renewal and Learning Processes*. Springer. US.
- McDaniel RR 2007. Management Strategies for Complex Adaptive systems. *Performance Improvement Quarterly*, 20 (2) 21-42.
- Morrow, EW 1988. *Understanding the Outcomes of Megaprojects: A Quantitative Analysis of Very Large Civilian Projects*. Santa Monica, Calif: Rand Corporation.
- Miles, M., Huberman, M. 1984. *Qualitative Data Analysis: A Source Book for New Methods* Beverly Hills, CA: Sage Publications.

- Miller, C.C., Cardinal, L.B., Glick, W.B. 1997 Retrospective Reports in Organizational Research: A Reexamination of Recent Evidence. *Academy of Management J.* 40: 189–204.
- Miller, R. and Lessard, D. 2001. Strategic Management of Large Engineering Projects: Shaping Institutions, Risks, and Governance. MIT Press 2001.
- Mintzberg, 1979. The Structuring of the Organizations. Prentice-Hall
- Morris, P. 1994 *The Management of Projects*, Thomas Telford, London
- Morris, PW, Hough GH 1987. The Anatomy of Major Projects: A Study of the Reality of Project Management. Wiley. Chichester
- Narayanan, V.K., Fahey, L. 1982. The micro-politics of strategy formation. *Academy of Management Review*, 7, 25–34.
- National Audit Office 2009. The Building Schools for the Future Programme. HC 135 Session.
- National Audit Office 2015. Delivering major projects in government: a briefing for the Committee of Public Accounts. Report by the Comptroller and Auditor General. 22 Dec
- North, D 1990. Institutions, Institutional Change and Economic Performance, Cambridge: Cambridge University Press
- O'Mahony, S, Ferraro, F 2007. The emergence of governance in an open source community. *Academy of Management Journal*, 50: 1079-1106.
- Orton, JD, Weick, K 1990. Loosely-Coupled Systems: A Reconceptualization, *Academy of Management Review* 37(2) 203–23.
- Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Actions* Cambridge: Cambridge University Press.
- Ostrom, E. 2005. *Understanding Institutional Diversity* Princeton NJ: Princeton University Press.
- Ostrom, E. 2010 Beyond markets and states: polycentric governance of complex economic systems. *The American economic review*, 100(3) 641-672
- Ostrom, V. 1972. Polycentricity. Presented at 1972 Annual Meeting of the American Political Science Association, Washington, DC, September.
- Ouchi, WG, Segal L. 2003 *Making schools work*. New York Simon & Schuster.
- Perrow, C. 1984. *Normal accidents: Living with high-risk technologies*. New York: Basic Books
- Pettigrew, AM 1973 *The Politics of Organizational Decision Making*. Taylor & Francis, London.
- Pfeffer J, Salancik, GR 1978. *The external control of organizations*. New York, Harper & Row
- Pitsis TS, Clegg SR, Marosszeky M, Rura-Polley T. 2003. Constructing the Olympic Dream: A Future Perfect Strategy of Project Management. *Organization Science* 14(5) 574-590.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology* (88) 879-903

- Provan KG, Milward BH 1995. A preliminary theory of interorganizational network effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly* 40 (1):1–33
- Raab,J, Mannak, RS, Cambré, B 2015. Combining Structure, Governance, and Context: A Configurational Approach to Network Effectiveness *J Public Adm Res Theory*, 25 (2) 479-511
- Reilly 2001. Collaboration in action: An uncertain process. *Administration in Social Work* 25(1):53-73.
- Ring, PS., Van De Ven, AH. 1994. Developmental Processes of Cooperative Interorganizational Relationships. *Academy of Management Review*, 19 (1) 90-118.
- Rittel, H, Webber, M 1973 Dilemmas in a General Theory of Planning. *Policy Sciences*, 4:150-169
- Ross, J, Staw, BM 1986. Expo 86: An escalation prototype. *Admin.Sci. Quart.* 31 274–297.
- Satwo, RL 1975. Value-rational authority and professional organizations: Weber's missing type. *Administrative Science Quarterly*, 20: 526-531.
- Scott, WR 1987 *Organizations Rational, Natural, and Open Systems* (2nd ed.)Prentice-Hall, Englewood Cliffs, NJ.
- Shenhar, AJ, Dvir, D 2007. *Reieventing Project Management. The Diamond Approach to Successful Growth and Innovation*, Harvard Business School Press.
- Siggelkow, N. 2007. Persuasion with Case Studies *Academy of Management Journal* 50: 20–24.
- Simon H.A. 1962. The Architecture of Complexity *Proceedings of the American Philosophical Society* 106: 467-482.
- Stacey, RD 1995. The science of complexity: An alternative perspective for strategic change processes. *Strategic Management Journal*, 16:477-495
- Staw, BM 1981. The escalation of commitment to a course of action. *Acad. Management Rev.* 6(4) 569–577
- Stone, MM, Brush, CG 1996. Planning in ambiguous contexts: the dilemma of meeting needs for commitment and demands for legitimacy. *Strategic Management Journal*, 17 (8) 633-652.
- Strauss, A, Corbin, JM 1998. *Basics of Qualitative Research*. Sage. Newbury Park, CA.
- Susskind L, Cruikshank J 1987. *Breaking the impasse: Consensual approaches to resolving public disputes* New York: Basic Books
- Thompson, J. D. 1967. *Organizations in Action: Social Science Bases of Administrative Theory*. NewYork: McGraw-Hill.
- Thomson AM, Perry JL 2006. Collaboration processes: Inside the black box. *Public Administration Review* 66(S1): 20-32
- Tuertscher, P., Garud, R., Kumaraswamy, A. 2014. Justification and Interlaced Knowledge at Atlas, CERN. *Organization Science, Articles in Advance*, 1-30.

- Van de Ven AH 1976. On the nature, formation, and maintenance of relations among organizations. *Academy Management Review*, 1(4):24–36
- van de Ven, A. H. 2007. *Engaged Scholarship. A Guide for Organizational and Social Research*. Oxford University Press.
- von Hippel, E. 1994. Sticky Information and the Locus of Problem Solving: Implications for Innovation *Management Science* 40 (4) 429-439.
- Westley, F 1990, Middle managers and strategy: micro dynamics of inclusion. *Strategic Management Journal*, 11, 337-51
- Whittington, R. 2006. Completing the practice turn in strategy research. *Organization Studies*, 27, 613–34.
- Williamson OE 1996. *The Mechanisms of Governance*. Oxford University Press, Oxford.
- Wooldridge, B, Schmidt, T, Floyd, S 2008. The middle management perspective on strategy process: contributions, synthesis, and future research. *J. of Management*, 34, 1190-221.
- Yin, R. 1984. *Case Study Research: Design and Methods* Los Angeles, CA: Sage Publishing.

Table 1- Description of the Projects embedded in the Manchester BSF Program Case

Project & timescale	School type	School context	Official assessment of school performance	Pressure on project budget	Consensus on Innovation
Abraham 2007-12	1200-place comprehensive co-located w/ community center	Deprived area 84% pupils from minorities	Good <i>This is a good school with a range of outstanding features, serving its community extremely well...an exceptionally inclusive school...</i>	Some (late) flexibility Allowance from co-location with SEN school	No School had closed open plan areas from 70s
Gorton 2006-08	900-place comprehensive	Deprived area <i>Over 50% pupils from minority groups</i>	Satisfactory [mainstream school] <i>Teaching is good... students' outcomes are satisfactory</i> Outstanding [SEN school] <i>School has profound and beneficial impact on students and their families</i>	Some flexibility Capital allowance from SEN co-location	Yes School faculties open to innovative designs
Newall 2006-08	900-place comprehensive co-located w/ SEN school, leisure center	Deprived area <i>40% pupils disadvantaged and vulnerable</i>	Outstanding <i>The care, guidance, and support provided are outstanding.... proven track record of turning around disaffection and ... under achievement</i>	Some flexibility Allowance from co-location status	No Faculties advocated traditional spaces

Matthews 2007-09	1100-place faith-based	Deprived area <i>35% students eligible for free school meals</i>	Satisfactory <i>School has a number of significant strengths, particularly in the quality of care, guidance, and support</i>	Very tight No capital allowance	Mixed feelings Some faculties happy to endorse innovative spaces
Paul 2007-09	900-place faith-based co-located w/ SEN school	Deprived area <i>Large influx of non-native students</i>	Satisfactory [mainstream school] <i>Pupils' personal development is satisfactory... quality of teaching and learning is satisfactory</i> Outstanding [SEN school] <i>Students leave confident, well- rounded</i>	Some flexibility Capital allowance from SEN co-location	Mixed feelings Some faculties happy to endorse innovative spaces
David 2007-10	850-place faith-based	Privileged area <i>Few students eligible for free meals</i>	Very good <i>The school aims to meet the needs of students who would have gone to the independent sector were the school not to achieve high examination performance</i>	Some (late) flexibility Allowance from co-location w/ primary school	No School leaders took exception with innovative ideas

Figure 1 – Data Coding Structure and Model of Polycentric Commons Governance

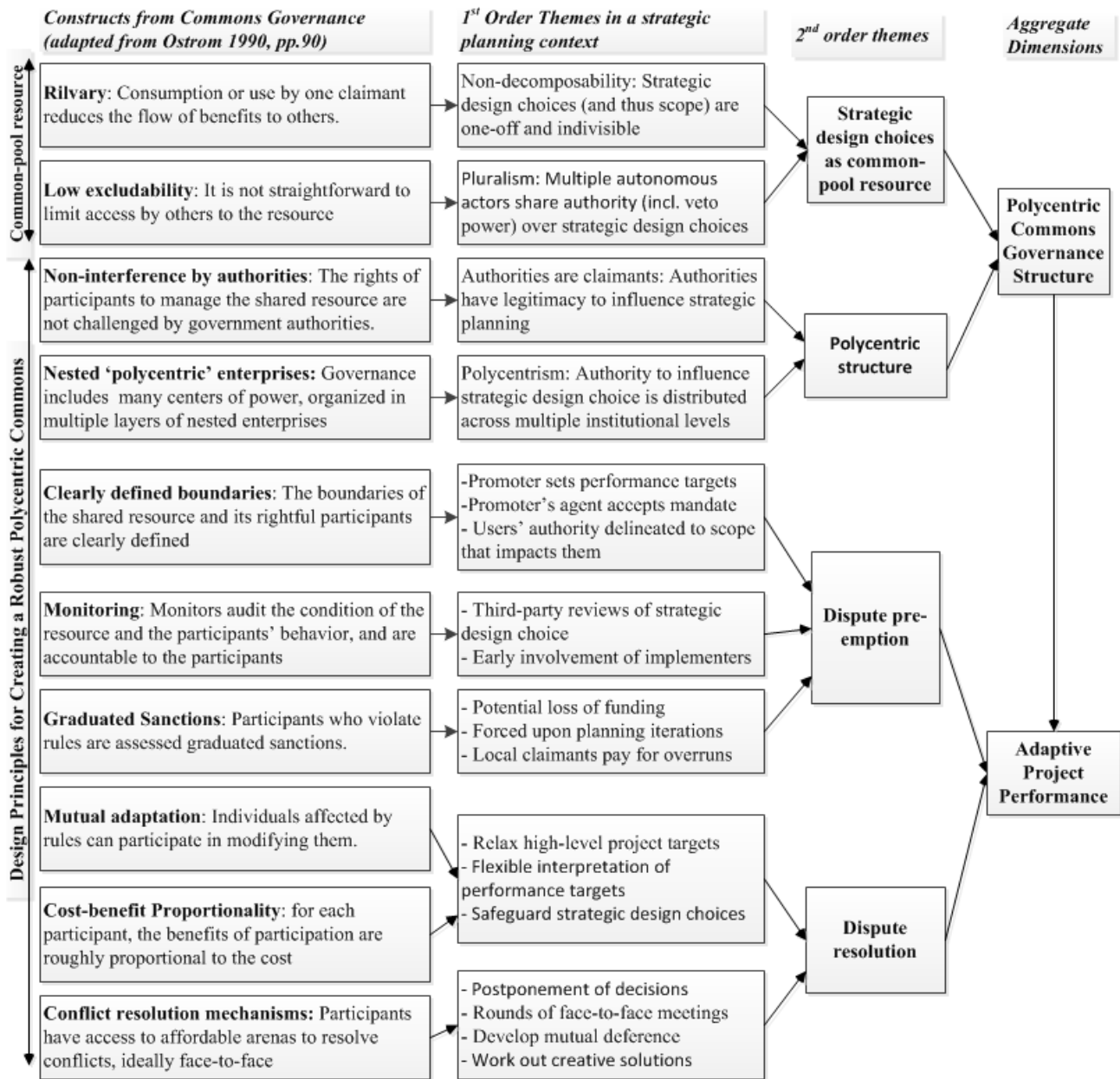


Figure 2 –Polycentric Commons Governance Structure: Schema and selected quotations

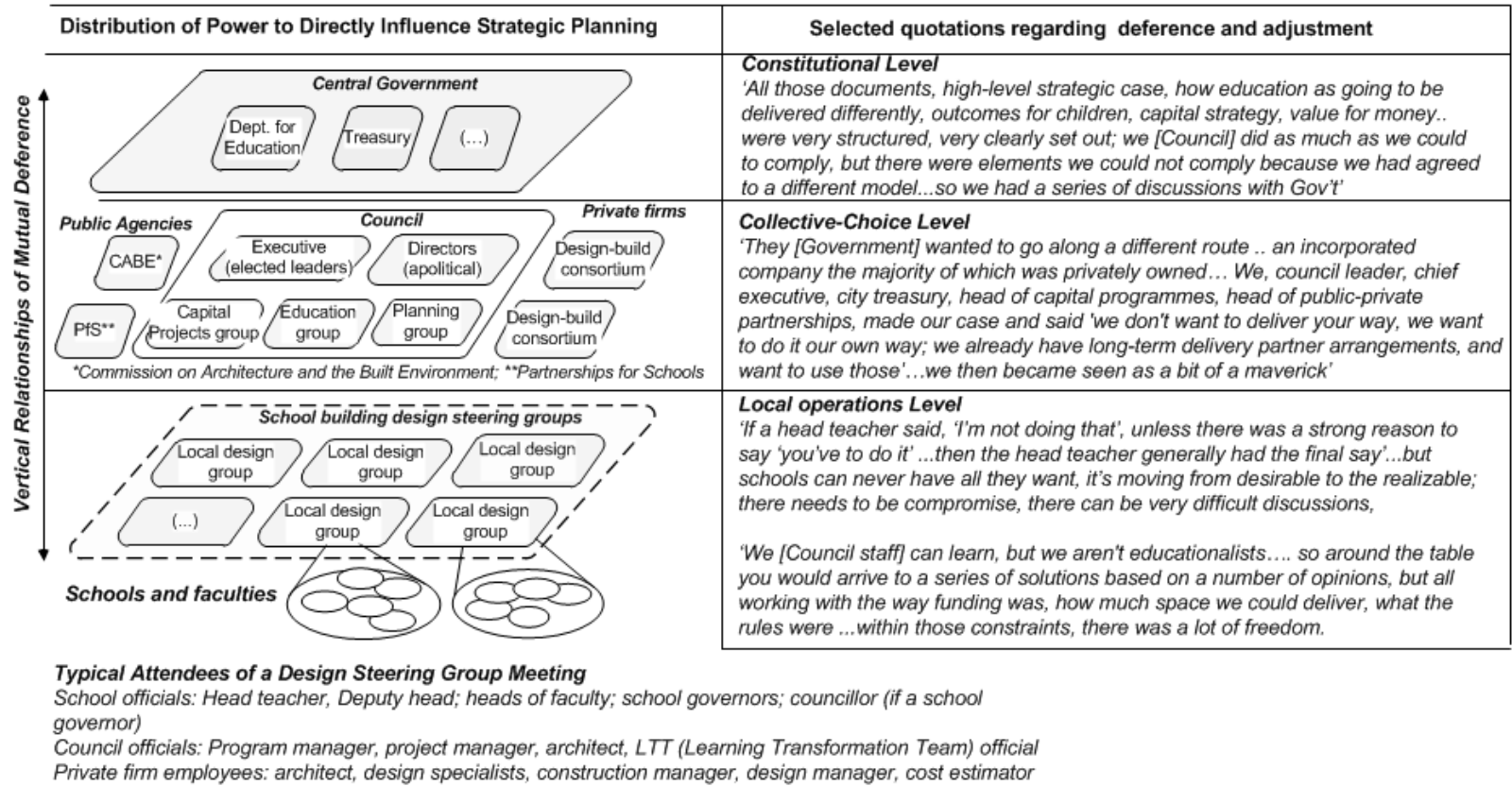


Table 2 – Summary of Evidence for the Evaluation of the Performance of the Manchester BSF Program

Project	Adoption of Innovative Choices	Actual Project Cost (\$)	Project Timescale	School leaders' satisfaction and example quotations	
				With the outcome	With the governance

Abraham	<p>Traditional</p> <p>100% traditional labs 94% traditional areas</p> <p><i>We're a bit boring and traditional</i></p>	<p>Budget relaxed</p> <p>2006, £14.5m 2009, £16.6m : £15.6m + £1.0m (risk pot) 2012, £16.7m 60 compensation claims</p>	<p>Late</p> <p>2 years delay relative to original target</p>	<p>Very Positive</p> <p><i>It'll be a terrific boost. ..I feel very happy about it[Head]</i></p>	<p>Negative with wave 1; Positive with wave 2</p> <p><i>[Wave 1] was a very difficult, really upsetting experience...I was bullied a bit, but they couldn't get me to agree to it....In wave 2 everyone understood our point of view.... there was a lot of negotiation, accommodating behavior by both sides...a lot of trust</i></p>
Gorton	<p>Innovative*</p> <p>100% modern labs ; 52% traditional areas; 48% flexible areas</p> <p><i>We encourage teachers to take risks, but we're not frivolous</i></p>	<p>Within initial budget</p> <p>2006, £24.0m 2007, £23.6m : £21.8m (target) + £1.8m (risk pot) 2008, £23.8m 106 compensation claims</p>	<p>On time</p>	<p>Very Positive</p> <p><i>A dream come true [SEN Head]</i></p> <p><i>Outstanding design [Head]</i></p>	<p>Very positive</p> <p><i>It was a fantastic process...I didn't necessarily have the power to reject some things, but often gave reasons why things should be different and people listened. It was a balancing act all the time ...bloody hard work</i></p>
Newall	<p>Hybrid</p> <p>100% traditional labs 55% traditional faculty areas 45% flexible areas</p> <p><i>Whether open plan will work or not we still aren't sure; it was a risk</i></p>	<p>Budget relaxed</p> <p>2006, £16.4m 2007, £17.2m: £15.3m (target)+£1.9m (risk pot) 2009, £18.7m 63 compensation claims</p>	<p>On time</p>	<p>Positive</p> <p><i>It's going to look really nice and practical [Deputy]</i></p>	<p>Positive on balance</p> <p><i>The process was as democratic as it could be..there has been an awful lot of negotiation, and certain things have been absolutely no compromises...but the figures were shrouded in secrecy; if you're working together, and we worked quite well, you should be more transparent</i></p>

Matthews	Hybrid 100% modern science labs 74% traditional faculty areas; 26% flexible areas (master rooms) <i>Open plan was not the way we wanted to go...[but] we'll have modern labs, we don't always need Bunsen burners</i>	Within budget 2006, £18.2m (06 formula) 2007, £18.1m: £16.1m +£2.0m (risk pot) 2009, £18.2m (final price) 54 compensation claims	Largely on time ~3 weeks delay	Positive <i>We're going to have a wonderful school, a great opportunity for us all</i>	Positive on balance <i>The budget is too small, the whole building had to shrink in....on some days it felt we had no share of voice....can't believe on the 3rd day of my Easter holiday I'm still here. But the opportunity... is phenomenal</i>
Paul	Traditional 100% traditional labs 100% traditional faculty areas <i>my science dept. opinion is that if you call it a lab it should be fully equipped</i>	Within budget 2006, £24.4m 2007, £26.6m: £21.9m (target) + £4.6m (risk pot) 2009, £25.0m 106 compensation claims	Largely on time ~ 5 weeks delay	Very positive <i>We ended up with a good design [Head]</i> <i>Probably got 85% of our wish list [SEN head]</i>	Positive on balance <i>We were involved. There are always constraints when you actually build: ...You cannot argue with these principles [mainstream school]</i> <i>they couldn't have done it without us. ...it's quite an amazing thing to be entrusted, to put a massive input in a design [SEC school]</i>
David	Traditional 100% traditional labs 100% traditional faculty areas <i>We're proud of being an old new school</i>	Budget relaxed 2006, £19.8m 2009, £21.4m: £20.1m (target)+£1.3m (risk pot) 2010, £20.8m 198 compensation claims	Late ~1-year delay	Very positive <i>Our environment is very nice. The majority of the spaces are better than the [old] ones</i>	Positive <i>I think the process was successful. I didn't find much tension working with the Council ...as long as we were careful in explaining what we wanted...there were compromises</i>

(§) All prices presented in final (outturn) costs

(*) The amount of open space was cut down after the design watchdog expressed concerns that the design choices were 'too risky'

Governing Strategic Planning in Pluralistic Projects: A Polycentric Commons Approach

This study explores the governance of strategic planning in pluralistic projects. In these settings, the promoter faces the challenge of co-producing strategic choice with multiple actors with conflicting goals whilst avoiding scope creep, overruns, and defections. This study was sparked by a pluralistic project where strategic planning was reportedly successful. The setting is a program to develop a fleet of school buildings wherein national/local government officials and the schools' leaders shared authority over strategic design choices (project scope). For guiding the case research, we first extend Ostrom (1990)'s theory of polycentric commons governance to management studies on collective action. Using this cognitive lens, the analysis yields a model that illuminates how polycentric commons governance can encourage project actors to cooperate in strategic planning. The proposed model derives a prevailing perception of positive performance from, first, two complementary clusters of organizing structures and rules—one aimed at preempting strategic disputes and another at resolving disputes; and second, to adaptive performance where local goals are accommodated without overly sacrificing the promoter's goal.

INTRODUCTION

This study aims to contribute to our understanding of governing strategic planning in a pluralistic project. The aim of strategic planning is to discuss the mission and goals, explore the environment, allocate resources, choose between alternatives, and plan actions of implementation (Andersen 2004, Morris 1994). In pluralistic settings, multiple actors with conflicting goals share decision-making power and must cooperate to co-produce strategic choice (Denis et al. 2001, 07, 11, Hargrave and Van de Ven 2006). In *extreme* pluralist settings, a 'dominant coalition' (Pettigrew 1973, Hardy 1995) can rarely mobilize sufficient power to overcome opposition and impose their perspective on others. Hence extreme pluralistic settings, such as universities (Jarzabkowski et al. 2010), public infrastructure projects (Pitsis et al. 2003), and hospitals (Denis et al. 2001) create major challenges for co-producing strategic choice.

Strategizing under pluralism is inherently a political activity (Cohen and March 1986, Mintzerbg 1979, Satwo 1975, Narayanan and Fahey 1982). Strategic choice emerges through reciprocity, compromise, and negotiations between self-interested actors (Jarzabkowski et al. 2010). It is the 'art of the possible' in which any potential strategic choice is likely to encounter

multiple challenges from leaders, organizational constituencies and the broader environment under different layers of governance arrangements (Denis et al. 2007, 01, 11).

Governance relates to the organizing structures and rules that allocate decision-making authority and resource control, shape behaviors, and resolve disputes (Galbraith 1973, Lawrence and Lorsch 1967, Simon 1962). Governance impacts how pluralistic organizations achieve objectives and interface with the environment (Carney 1987, Astley and Fombrum 1983, Ostrom 1990). As Denis et al. (2001) argue designing governance, or ‘governmentality’ (Clegg et al. 2002), is a substantive act of leadership. Our study looks at *project* governance. We argue this focus matters given the increasing ‘work projectification’ (Hobday 2000, Lundin and Söderholm 1998) in government and regulated firms, two classic pluralistic contexts (Jarzabkowski and Fenton 2006). Hence we ask: *which governance structures can project leaders design to help reconcile conflicting goals with the initial project targets, and how can they do so?*

In extreme pluralistic projects, effective governance needs to counter a prevailing perception in the eyes of third parties that strategic planning is doomed to ‘fail’ (Hall 1972, Morris and Hough 1987, Merrow et al. 1988, Flyvbjerg et al. 2003). This perception is rooted in norms that associate ‘success’ to meeting initial targets, and which go back to the origins of project management as a professional discipline (Cleland and King 1968). Because legitimacy is about external validation relative to what established norms deem appropriate (Scott 1987), scope creep and cost/schedule overruns destroy external legitimacy. For example, a UK government watchdog highlights ‘regular failure’ in the government’s £500bn project portfolio (NAO 2015).

Extant studies trace the ‘failure’ of pluralist projects to decision pathologies endemic to these settings. Escalating commitment occurs when the ‘constellations of leaders’ who share decision-making power (Hodgson et al. 1965) continue to add scope to the project albeit

evidence suggesting a losing course of action (Staw 1981, Ross and Staw 1986). Escalating indecision occurs when the leaders become trapped in continually making, unmaking, and remaking strategic choice (Denis et al. 2011), or as Latour (1996) puts it when ‘everybody agrees not to make any decisions’. Other known decision pathologies in pluralistic projects are optimism bias and strategic misrepresentation (Flyvbjerg et al. 2003), both of which lead to collective commitment to unrealistic goals or ‘inflationary consensus’ (Denis et al. 2011).

Whilst literature is rich in explaining why pluralistic projects ‘fail’, we still know little how they can succeed (Pitsis et al. 2003), and thus how to tame the ‘wicked’ (Rittel and Weber 1971) strategic planning. Hence we were intrigued when we heard good news from third parties about the £450 million program to build state schools in Manchester, UK, the award-winning program that sparked this research. The UK government was the promoter and financier; the local government, the Manchester City Council (hereafter the Council) was the recipient of funds and future asset manager. At the heart of this case research (Eisenhardt 1989, Yin 1984) is the Council’s decision to give to all schools equal rights to influence strategic planning. Strategizing occurred in a context of extreme pluralism and high stakes due to sharp disagreement between and within professions over the right design choices for a 21st century school building.

Amplifying our sense of surprise that the school projects had not ‘failed’ were four factors: i) tight budgets and timescales ruled out the use of slack resources to mask unresolved conflict, what (Cyert and Mark 1963) call ‘quasi-resolution of conflict’; ii) real obstacles to use strategic ambiguity for creating space for incompatible goals (Jarzabkowski et al. 2010, Denis et al. 2011)—agreeing one-off strategic design choices was a prerequisite to implement a project; iii) limited chances that government officials could use authoritarianism to impose their choices since schools are powerful players in local politics (Ouchi 2003); and iv) third-party accounts

that at national level the school building program was ‘failing’, and thus about to collapse.

And yet, there are examples of extreme pluralistic settings where stakes are high and slack scarce that have done well in the public eye. Their success has been traced back to a complex set of organizing structures and shared rules—this is the core claim of polycentric commons governance theory (Ostrom 1990, 2010), a research stream rooted in political science. Vincent Ostrom (1972) first defined polycentric governance as a pattern of organizing where self-interested actors order their relationships through a nested structure of shared rules and centers of delineated decision-making power with capacity for mutual adjustment and local variation.

The theory was further developed by Elinor Ostrom (1990) after studying extreme pluralistic settings such as police forces in Indiana and water resource management in California. In agreement with management studies, commons theory argues that governing collective action is a struggle (Dietz et al. 2003). But the theory is optimistic: if the claimants to a shared resource work out a set of reasonable structures and rules that delineate their own authority and create flexibility to cope with local variation, cooperation can ensue. Ostrom (1990) called this form of organizing ‘polycentric commons governance’. In this structure, shared resources become ‘common-pool resources’ because they can be used by many actors with rivalrous objectives.

Pluralistic projects fit within the boundary conditions of polycentric commons governance: the theory is informed by pluralistic settings where authorities and their constituencies interact at various institutional levels; stakes are high (uncontrolled self-interest destroys the shared resource), and slack is scarce—collective action is constrained by fixed deadlines (due to natural or political cycles) and tight budgets. The potential of prescriptions flowing from this theory to illuminate our problem led to an intuition that it could be a useful lens for our exploratory study.

We chose to undertake case research because of its potential to enable researchers to reveal

the complexity in social settings, to study interconnected events longitudinally, and to explore new ideas in comprehensive ways (Eisenhardt and Graebner 2007, Miles and Huberman 1994). But before we could use commons theory to guide case research, it was necessary to first extend it to strategic planning, a deductive step (Gil and Baldwin 2013). This step, presented in the ensuing section, establishes how strategic *design* choice (the choices that define the scope) can become a common-pool resource and be subjected to polycentric commons governance.

The case research that follows using this theoretical perspective offers three contributions. First, we argue that strategic design choices can indeed qualify as an Ostrom's (1990) common-pool resource and be subjected to polycentric commons governance. Commons logic can emerge under extreme pluralism if the authorities promoting the project opt to share decision-making power—including *veto power*—for one-off strategic design choices with the key stakeholders.

Second, this study illuminates two clusters of mutually reinforcing organizing structures and shared rules that are critical to sustain the pluralistic project organization. One cluster aims to preempt too many strategic disputes from emerging, and the other to reconcile disputes that emerge due to interdependencies between multiple strategic choices. And third, this study reveals nuances in the performance of this complex form of organizing a pluralistic project. The main point is that performance is adaptive. Adaptation is necessary to accommodate variance in the stakeholders' local goals and wherewithal without overly sacrificing the promoter's own goals.

The remaining of this paper is structured as follows. First we combine management studies on pluralism and commons literature to formulate the theoretical perspective guiding case research.

THEORETICAL APPROACH TO STRATEGIC CHOICE IN PLURALISTIC PROJECTS

The focus of this study is governance of strategic planning under pluralism, and thus structures and rules that constrain and enable strategic choice. We draw theoretically from

Ostrom (1990)'s tradition to look at the institutions or 'rules of the game' (North 1990) that sustain collective action. This approach complements management studies on how communication and symbolic devices influence strategizing under pluralism along the tradition of looking to strategy as a practice (Jarzabkowski 2005, Jarzabkowski et al. 2010, Whittington 2006, Denis et al. 2011). The complementarity is logical as both bodies of literature assume that pluralistic settings are politically-charged. Hence we organize this review by first summarizing the political process of strategizing under pluralism; then we examine complications that arise in a project context; and finally discuss how Ostrom's optimistic ideas can enrich this debate.

The political process of strategizing in pluralistic settings

Pluralistic settings, also called 'value-rational' (Satwo 1975) or 'professional bureaucracies' (Mintzberg 1979), are challenging for would-be strategists. Reconciliation of conflicting goals by fiat is not possible when power is diffused and work processes are knowledge-based (Denis et al. 2001). Strategizing under pluralism is thus inherently a political activity (Jarzabkowski and Fenton 2006). Because things seldom occur according to plan, pluralistic settings are associated with concepts such as 'organized anarchy' (Cohen et al. 1972) and 'loose coupling' (Orton and Weick 1990). Cohen et al. (1972) use the 'garbage can' metaphor to refer to the disassociation between problems, solutions, and choice opportunities. Studies in the health care sector by Denis et al.'s (2001, 2011) show more coupling between problems, solutions, and opportunity, but still conclude that strategizing is a challenge, and thus argue leaders deserve 'sympathy not blame'.

Three conflicting forces are behind the leadership challenge: i) stakeholders expect the leaders to spell out an unambiguous vision that convinces them to commit resources (Stone and Bush 1996); ii) forceful leadership is incompatible with social approval, and thus the leaders need to keep the goal vague to sustain legitimacy by the approval of the led (Denis et al. 2011);

and iii) the environment expects leaders to limit the number of concessions to sustain the credibility and external legitimacy for the pluralistic organization (Stone and Bush 1996).

This seemingly impossible leadership task has spurred research on rhetoric and symbolic devices that help the leaders strategize and keep the organization afloat. One device is strategic ambiguity which is enacted through equivocal language, postponement of decisions, and commitment to unrealistic goals (Denis et al. 2007, 10, Jarzabkowski and Fenton 2006, Jarzabkowski et al. 2010). Ambiguity creates space for conflicting goal interpretations and thus complements efforts to align interests through interaction and communication (Hargrave and Van de Ven 2006). But ambiguity can confuse the recipients of the discourse and creates a risk of inaction and reversal (Abdallah and Langley 2014). To neutralize the negative effect of ambiguity, leaders can invest in ‘reification’. These practices aim at assigning symbolic value to continued involvement and making it hard for participants to withdraw without losing face, for example, by requiring signatures and enthusiastic discourses (Denis et al. 2011).

Discursive practices aside, reconciling conflicting goals when power is diffused is often a matter of time. Consensus is hard to rush because holding lengthy talks is needed to allow actors to make sense of complex problems and coordinate collective action (Susskind and Cruikshank 1987, Gersick 1994, Thomson and Perry 2006). Denis et al. (2001) study of the health care sector, for example, shows leaders need time to become embedded in the organization and gain the trust of powerful constituencies. Time is also needed to co-produce creative solutions that resolve the issues and more so the more extreme pluralism is—for example, multiple scientific communities needed 20 years to co-produce the ATLAS particle detector (Tuertcher et al. 2015); and 40 years were needed to construct a global, shared climate change logic (Ansari et al. 2013).

The long timescales for strategizing under pluralism create a real risk of inaction. In many

cases, inaction is rooted in what Langley (1995) calls “paralysis by analysis”, a notion that refers to how powerful people who do not quite trust one another are motivated to use rational means to convince others albeit the risk of indecision if evidence is contestable. In a time-bound project context, ensuing contestation leads to a risk of project failure as we discuss next.

The Politics of Strategizing in a Pluralistic Project Context

Strategic plans matter to create legitimacy for an organization and its strategy with external stakeholders (Langley 1995, Stone and Brush 1996). In a pluralistic project, a major challenge is to co-produce plans that align scope with committed resources and environmental constraints (Clegg and Courpasson 2004). If the project leaders succeed to do so, they create a perception of project ‘success’. If the project leaders fail, others can judge their behavior as inappropriate which puts at risk their long-term survival in a leadership position (Denis et al.2001).

Public infrastructure projects are particularly vulnerable to ‘fail’. These capital-intensive projects impact many stakeholders and take many years to plan. Designing structures to govern strategic planning is thus a complex endeavor (Clegg et al. 2002). A long planning horizon in a context imbued in pluralism and punctuated by elections provides plenty of opportunity for defections (or threats of) and reversals. This makes project leaders vulnerable to succumb to passive positions, and undo strategic choices to please their constituencies, leading to escalating indecision (Denis et al. 2011). Alternatively, if scrutiny lacks and slack is plenty, leaders can find it tempting to let scope creep for neutralizing conflict and self-aggrandizement, and use biased information and sunk cost fallacies to justify the actions (Ross and Staw 1986, Staw 1981).

The poor normative and statistical record of pluralistic projects has fueled two views in the projects literature. Morris (1994), for example, traces poor performance to leaders’ decisions to rushed strategic planning; and Flyvbjerg et al. (2003) suggest leaders suffer from optimism bias

at best and misrepresent strategic plans at worst. Both studies choose to adopt a third-party perspective of the problem. In contrast, looking to the problem from the inside, Miller and Lessard (2001) argue that pluralistic projects cannot be planned reliably; and Pitsis et al. (2003) trace the success of a pluralistic project to the empowerment of its leaders which had the chance to gradually co-construct a ‘future perfect’ strategy as opposed to get locked in rigid plans.

The two views are difficult to reconcile because they look at different facets of the same problem. And yet, they can potentially be reconciled if we cast a wider net over the phenomenon to capture a wider range of actors that influence strategic choice. For commons theorists, for example, the wider concept of polycentricity is central to the study of extreme pluralistic settings. But how can we extend commons governance to strategizing in pluralistic projects and enrich this debate with Ostrom’s optimistic claims? This is the focus of the next section.

Extending polycentric commons governance to pluralistic projects

At the heart of commons theory is a symbiotic relationship between a common-pool resource and commons governance (Ostrom 1990). Common-pool resources are shared resources that are open to multiple claimants with rivalrous goals. Classic examples are fisheries or pastures owned by a collective. If governance is fragile, the risk is real that individual claimants over use the resource for their own benefit, leading to a tragedy of the commons (Hardin 1968).

But Ostrom’s (1990) work is optimistic. It claims that even extreme pluralistic settings are potentially sustainable. A prerequisite is to create a ‘polycentric’ governance structure, this is to decentralize decision-making authority across nested centers of decision-making power with capacity for mutual adjustment and local variation—an idea that echoes Orton and Weick (1990)’s idea of creating loosely-coupled systems to attenuate conflict. In a robust polycentric structure, high-level authorities limit their interference to the design of a ‘constitution’; at a

lower level, where most collective action occurs, constituents can self-create their own rules.

The idea of creating a polycentric commons to govern strategic planning is interesting since decentralization helps organizations to interpret situations and take action that is correct (Perrow 1984). It also helps to elicit ideas about how to solve a problem as relevant knowledge often resides in those closed to the problem; incumbent-driven processes also lead to higher levels of satisfaction among participants (Diehl and Stroebe 1991). Research also suggests that commons logic can emerge outside the world of natural resources; for example, firms self-regulate to protect an industry reputation violating legal frameworks (Barnett and King 2008). But how can strategic choice conflate rivalry and low excludability, and become a common-pool resource? We tackle the issue of rivalry first for one class of strategic choice—strategic *design* choice.

Rivalry of Strategic Design Choices in a Pluralist Project

Strategic *design* choices are a class of strategic choice. In a project, they specify the outcome (scope) that people intend to implement. Inflationary consensus (Denis et al. 2011) occurs when agreed scope is not commensurate with the committed resources. Then, in implementation, leaders either ditch scope or let the targets slip—either way, underperformance perceptions ensue. Infrastructure projects are particularly challenging for strategic design choice because the outputs are one-off assets which many actors will share in use. Since these actors rarely have the same goals, one actor's preferred design choices will preclude another's, and high rivalry ensues.

Three factors exacerbate the rivalrousness of strategic design choice. First, if project budgets are tight and fixed, what is spent on one design choice cannot be spent on others, and claimants with conflicting goals must perforce compromise. Second, if timescales are tight due to electoral or regulatory cycles, people will lack sufficient time to co-produce consensual design choice. Third is the longevity of strategic design choices. When the assets are long-lived and strategic choices are hard to reverse, it is harder for people to give ground when negotiating trade-offs.

Low Excludability of Strategic Design Choices in a Pluralistic Project

Excludability refers to the ease with which potential claimants can be prevented from accessing a shared resource. Whilst rivalrousness is largely determined by the properties of the resource, excludability is determined by a combination of human actions (such as locking a door), laws, norms, and conventions (Ostrom 1990).

In a pluralist project, excludability from influencing scope is largely a function of who controls the resources critical for the scheme to forge ahead. In public infrastructure projects, the promoter/financier and land use regulators (e.g., local government, courts) share rights ex-officio to influence scope. Hence excludability from strategic design choice is somewhat low. Yet the project promoter keeps some discretion as to who else should participate. If the promoter opens decision-making to future user groups, it gets difficult to exclude them later on if goals turn out incompatible without breaking one's word. Under these circumstances, strategic design choices conflate low excludability and high rivalry, and thus qualify as a 'common-pool' resource.

A Polycentric Commons approach to Govern Strategic Design Choice

We argued that strategic *design* choices can in theory qualify as a common-pool resource. But a common-pool resource and commons governance are two sides of the same coin. How can project governance enable strategic design choice to become a common-pool resource?

The basic idea of polycentric commons governance is to create a nested structure of shared rules that encourages self-interested claimants to the resource to cooperate. At the highest level, the authorities write a constitution that defines the legitimate scope of action for the lower-level groups. Its scope must be substantive, offering real possibilities of local variation. At an intermediate level, authorities and local claimants work out a set of collective rules; and at inner levels of action, rules are self-created by lower-level claimants who commit to respect the high-level rules. For example, users of California water basins self-regulate but must respect the state

and federal laws (Ostrom 1990). Likewise, the Carte di Regola that self-regulates the use of pastures still needs to be approved by the regional governments in the Alps (Ostrom 2005).

Decentralized governance and bottoms-up rule-making are policy choices that are received with skepticism due to the risk of free riding and uncooperative behavior (Libecap 1989). Empirical accounts also reveal that promoters of pluralistic projects are skeptical of decentralizing governance (Hall 1981, Morris 1994, Miller and Lessard 2001, Flyvbjerg et al. 2003, Gil and Tether 2011). Promoters prefer to appoint an agent who consults broadly. Still, promoters often see other claimants to the scope as ‘external’ actors, not development partners. But external stakeholders rarely give up fights to ‘shape’ (Miller and Lessard 2001) the strategic design choices, and indeed they often win. Hence a centralized organizational structure to govern strategic design choice invariably struggles to produce reliable strategic plans.

Commons theorists would encourage the project leaders to decentralize governance. This idea raises intriguing questions. Ostrom (1990) offers a set of design principles to create a robust commons governance structure. These principles are correlated with the success of commons governance although no single principle is either necessary or sufficient. But how would the principles translate in project terms? And how can robust governance contribute to achieve cost and schedule targets, and thus meet third parties’ expectations without disenfranchising stakeholders? We next discuss the methods and the setting used to tackle these questions.

RESEARCH METHOD, SETTING, AND SAMPLE

This study was sparked by reports of a successful public infrastructure project. The setting

was the award-winning¹ £450 million Manchester Building Schools for the Future (BSF) program, which was part of a £45 billion program to modernize 3,500 high schools in England. The grand idea behind the national program was to develop innovative school buildings to accelerate the implementation of national policies aimed at transforming education. The Council bid for funds was on the same page with national policy. Furthermore, the Council used its track record in project delivery² to persuade government to let it govern the program in its own way.

As we learned about both the Council's inclusive approach and ensuing governance struggle, an intuition emerged that commons theory could be a good lens to guide data collection and analysis. To take forward this idea, we had to extend Ostrom's ideas to strategic planning, a deductive step presented above. Another step was to gain access to the project leaders.

We gained access to the field late in 2008 at the end of strategic planning for the first batch of 11 school building projects (the Council bid for funding in 2006 to build 24 new schools by the end of 2012 in two batches). In 2008, the Council officials admitted that governance had been a struggle. Still all projects were reportedly on target (we discuss actual performance later) and all actors remained committed to the decentralized approach. This fact was significant since, at national level, cost and time overruns had turned the BSF program into a political football.

To examine in more detail the dynamics of strategic choice and investigate clear measures of performance, we embedded a unit of analysis in our case study (Yin 1984 p.42). Our diverse and polarized sample (Siggelkow 2007) of school projects varies in the rivalry in strategic design

¹ In 2010, the Council's 'innovative, inclusive, and outcomes-focused approach' received the Local Authority of the Year award by the British Council for School Environments

² The Council had regenerated the city center after the 1996 IRA bombing, and delivered the infrastructure to host the 2000 Commonwealth games

choices. Specifically, it includes schools that were excited with the government's innovation agenda and others that were not. It also includes schools operating in different contexts: secular vs. faith-based³ and free-standing vs. co-located with a primary or Special Educational Needs school. Schools with multiple constituencies had more needs for space than assumed by government regulation, which put more pressure on the budgets. Table 1 summarizes the sample.

...<Insert Table 1 here...>.

Data collection

We triangulated several data sources to improve the robustness of the insights (Jick 1979, Miles and Huberman 1984: 234). Triangulation provided more and better evidence along two dimensions. First, we collected data through interviews, archival documents, and presentations to overcome bias in data sources (reliability). And second, we interviewed different participants including government officials, teachers, and consultants to tap different domains of knowing the phenomenon (validity) (Van de Ven 2007).

The core of the fieldwork spanned four years so quantitative data on actual performance were available—some data was considered too sensitive to be shared before the end of the program. Overall we undertook 45 interviews (each lasting up to two hours and all recorded and transcribed) with school staff (#24), council staff (#14), and design and build consultants (#7). In addition, we conducted six formal interviews whilst given a tour of the new facilities by a member of the senior faculty. We also invited three Council officials to give talks about the program and stay for lunch, and took comprehensive verbatim notes during their visits. Finally, we reviewed 151 documents and combed through news on the local and national press.

³ Faith-oriented schools are state-funded but voluntarily aided by a religious organization that owns the school's land.

Specifically, for each building project, the internal documents included the school vision, the design brief⁴, schematic plans and cross-sections, and project reports. Periodic newsletters uploaded on the schools' websites and the Ofsted reports enabled to understand the ethos of each school. Other documents were Council reports, newsletters and press releases, and minutes of Council top management meetings. These documents allowed us to verify the project outcomes and cross-check the respondents' accounts of the rules governing strategic design choice.

The main source of external documents were Teachernet.com and Partnerships for Schools (PfS⁵)—two websites decommissioned after the new national government shut down the BSF program in 2010; other external documents included contemporaneous design manifestos and standards published by professional bodies and think-tanks. The external documents helped to cross-check the respondents' accounts. In addition, articles in the press and Parliamentary reports illuminated the interplay between the Manchester BSF program and national politics.

For purposes of internal validation and to overcome inherent biases (Strauss and Corbin 1998), we self-arranged the interviews with school staff including senior teachers, typically the head teacher, deputy head, and faculty heads.⁶ To avoid potential bias (Podsakoff et al. 2003), we proffered to sign a confidentiality agreement. But perhaps as an indictment of commons logic no one saw a need for it—people said they wouldn't tell 'us' anything that they had not told them'.

Data analysis

Extending Ostrom's ideas to strategic planning under pluralism was a deductive step

⁴ A design brief summarises the requirements, and form the basis for the architects to produce detailed drawings

⁵ PfS was a Building Schools for the Future delivery agency owned and funded by the Department for Education

⁶ A "head teacher" is the same as the "principal" of a U.S. secondary school; a "head of faculty" supervises the curriculum and teachers in a given subject area, for example, math, history, science

inspired by theory and which created a cognitive lens to approach our site. The ensuing case research was inductive and inspired by data. The combination of a deductive step with induction can be useful to gain insight from data without denying or reinventing existing concepts (Denis et al. 2011). During the analysis, as we learned more about the governance struggle and actual performance, we also began to look at literature in strategic planning under pluralism (Denis et al. 2001, 11, Jarzabkowski et al. 2010) in search for ideas useful to sharpen our argument.

The analysis followed an iterative process between data collection and theory development. The interview protocol included the questions: 1) which strategic disputes emerged during strategic planning; 2) what were the causes; 3) how were the disputes resolved; and 4) how happy participants were with the outcomes? Our initial cognitive lens led us to search for structures and rules that enabled and constrained strategic choice. After an initial pass sifting through raw data and populating the sensitizing categories with data excerpts, the coding was verified by enlisting the help of one scholar knowledgeable of the research. The main outcome of this first step was a set of first order themes that illuminate the sources of strategic disputes, the structures and rules instantiating governance, and critical dimensions of project performance.

As we engaged into further analysis to understand what the rules and structures were trying to accomplish, we gradually simplified and refined the categories. This phase led us to cluster the first order themes into more abstract categories: i) common-pool resource; ii) polycentric structure, ii) dispute preemption, iv) dispute resolution; and v) adaptive performance. The result is a model that links robust polycentric commons governance to adaptive project performance.

During the research process we followed Langley (1999)'s recommendations to draw diagrams and tables to sharpen the insights and reveal the connection between the argument and data. Interviewing multiple individuals at different times helped to develop a more reliable

theory (Miller et al. 1997). In turn conducting basic measurements on the final drawings (explained later) provided a quantitative assessment of how innovative the outcomes were. The research continued until we reached data and theoretical saturation (Strauss and Corbin 1998), and thus got clear that collecting more data on other projects would not change the argument.

ANALYSIS AND FINDINGS

We structure the analysis by first exploring the transformation of strategic design choice into a common-pool resource. We then discuss the emergence of a polycentric structure, and trace the perception of a successful project to two clusters of organizing structures and to adaptive performance. Figure 1 summarizes the logic of the argument. On the left side of Figure 1, we show the theoretical constructs of commons governance. It was this cognitive lens that led us to uncover the first order themes that illuminate the governance of strategic design choice.

<Insert Figure 1 about here>

Transforming strategic design choices into a common-pool resource

When we started the fieldwork in 2008 the national BSF program fitted like a glove to our understanding of how pluralistic settings exist between reification and ambiguity (Denis et al. 2011). The UK government claimed that BSF was the ‘greatest school renewal program in British history’⁷, producing ‘the best equipped schools in the world for 21st century learning’⁸. But for a design watchdog, most schools were ‘mediocre’ or ‘not good enough’; and an audit reported one-year average delays in strategic planning and 16-23% cost increases (NAO 2009). The opposition picked up on this report to argue BSF was ‘in danger of descending into chaos’⁹.

When the opposition ascended to power in 2010, it shut down the BSF program; the new

⁷ Booth, R., Curtis, P. (2008). Design threshold set for new secondary schools. The Guardian, 18 September

⁸ Blair, Tony (2004). Building Schools for the Future factsheet. Friday, 14 May

⁹ Lipsett, A. (2008). School building programme a failure, say Tories. The Guardian.

government cited widespread cost overruns and delays to justify cancelling 55% of 1,643 schemes under strategic planning; in total, only 20% of the 3,500 targeted schemes were completed. The change of policy did not affect our research site which was performing well in the eyes of government and the public eye more generally; by 2010, the Council had completed strategic planning for all the projects and opened the first school buildings reportedly on target.

Our site was clearly pluralistic. The Council bid for funds committed to the national government ideas around innovative school buildings, and thus to adopt open floor plans and state-of-the-art science labs (DfES 2003); in addition, strategic design choices could not violate national regulation that stipulated the minimum areas for different spaces; and the Council itself had a sustainability agenda and was interested in building ‘green’ schools to spur this agenda.

Pluralism was exacerbated after the schools got equal rights in strategic planning, a decision that we traced to two factors. First, all the schools in the first batch had been praised by Ofsted, the agency that inspects schools—for the Council, the competence of the faculties gave them legitimacy to influence strategic planning. And second, the Council post of Chief Education Officer was unfilled for reasons unrelated to the BSF program. One level up, the Director of Children Services was too busy to get involved which created a power vacuum; one official said:

We ... could sack the head teacher and replace the heads of faculties, but that wouldn't be democratic. We don't work that way. ... We work on the basis [that] these people ... [are] capable, they're there to improve attainment. If they become embattled and you give them a building with no choice, that doesn't empower people to deliver better results.

The different participants had, however, conflicting goals. For the schools, the priority was more space; green features were but a ‘nice-to-have’; and apart one exception (discussed later) most schools had not bought into the national innovation agenda. Rather, most faculties favored traditional spaces (closed classrooms, corridors, old-fashioned labs) which they view compatible with pedagogical innovations around project- and personalized learning; one official explained:

There was little time to educate schools... we [Council] weren't working for the same goals so we spent time arguing about designs... teachers weren't at the same wave length, they were in the dark ages... they thought they were masters of the universe, they didn't want to be fettered

Whilst the leadership constellation faced conflicting goals, each school could only have one building; or put it in theoretical terms, strategic design choices were 'non-decomposable' (Simon 1962). Hence high rivalry ensued over one-off design choices. Excludability of participation in strategic planning was also low. On the one hand, the Council had pledged to stay within the government mandate; on the other hand, the Council had given the schools power to veto the plans—in other words, strategic design choices had become a de facto common-pool resource.

Commons theory posits that sustaining a large pluralistic arena requires polycentric governance. This claim offered the starting point to probe into the Manchester governance.

Creating a Polycentric Governance Structure

In a 'polycentric' governance structure not all decisions are up for grabs by every claimant. Rather, authority is decentralized across a nested structure of multiple centers of decision-making and power. Our analysis suggests that the governance of the Manchester BSF case was polycentric. Figure 2 illustrates how the authority over strategic planning was distributed.

<insert Figure 2 about here>

First, BSF was the brainchild of central government, the organization which self-formulated the superordinate goal and developed the formula to set the budgets and timescales. Second, the Council was more than just a government's agent. It was the Council's job to procure and contract with architects and builders, and give planning consent; the Council had also planning authority to impose 'green' targets. And third, the Council committed to share the authority over the scope with the schools, and it was politically unviable to go back on its word.

The enactment of a polycentric structure to govern strategic planning in a public infrastructure project requires, however, relaxing Ostrom (1990)'s precept that interference of

authorities makes governance fragile. In our case, it is logical that the national government, the supplier of finance and a legitimating public discourse, wanted to influence scope—‘schools are a political input if you will...there are politicians involved every time new schools are being built’, said a seasoned head teacher. The Council as local authority also had a legitimate right to influence scope since it was accountable for school performance, project performance, and asset management. Hence the interference of these two authorities over strategic planning does not evince governance fragility, but a pluralistic project. The question that ensues is how this polycentric structure avoided project failure. We start by looking at how it tried to avoid conflict.

Preempting Emerging Disputes in Strategic Planning

Commons theory suggests that robust governance needs boundary demarcation, monitors, and sanctions. In this section we explain how these ideas illuminated three 1st order sets of organizing structures to encourage cooperation that we then clustered under dispute preemption.

Clearly defined boundaries across nested levels

The delineation of authority in the Manchester program goes beyond the demarcation endemic to a polycentric governance structure. At the highest level, central government set cost and schedule targets as well as scope expectations. But having set the high-level performance targets, the government deliberately chose not to further participate directly in strategic planning.

At a collective choice level below, and with the consent of national government, the Council leaders—including nine politicians and an apolitical team of Directors—chose to open up strategic planning to schools. But the Council also delineated the authority of each school to their building; one school could not interfere with planning for another school; furthermore, the Council was democratic up to a point—local communities and pupils would be only consulted. The schools found the budgeting rules hard to stomach, but nonetheless all agreed to respect it: We’re told there are £14m for the new build based on the formula. But the formula is massively

flawed. It has been in place forever. The formula doesn't take into account differences between mainstream and specialist schools.....Everyone knows these flaws but the money has already been allocated, and no one is going to do nothing... it isn't fair (Newhall head teacher)

Authority to influence strategic design choice was further delineated at the operational level below. Each project had a designated 'design steering group' made up of the schools' governors and senior faculty, Council staff, and contractor employees. Each group, with a core of about 10 people regularly attending, met roughly once every two weeks for approximately a year to develop a strategic plan; the meetings were closed and took about three hours. The groups were expected to follow the high-level rules explained in a Starter Pack. But they had free rein to set up rules self-governing day-to-day interaction, notably how frequently to meet and where, who should attend meetings, how to carve the project budget, and how to reconcile conflicting goals.

The analysis suggests that self-demarcated authority at steering group level further helped to preempt dispute. Hence the Council staff had the idea, and all schools agreed (although some had mixed feelings about it) that Council staff should keep the upper hand over technical issues. Council staff then ruled that to bring the building life-cycle costs down: i) components such as doors and windows would be chosen from a 'kit of parts'; and ii) all schools should have open ceilings. The idea of standard parts was consensual since the kit offered many options, but not the aesthetics of open ceilings—some teachers disliked it ("It's the maddest idea", said one), but others had no issues ("We'll probably blink them out after a few days", noted another).

In reciprocation, the Council staff deferred to the schools over design choices that would interfere with education. This was not an easy compromise since some schools were dubious or downright resistant with the innovation agenda. Some insisted that the government ideas were

not grounded in evidence, a key factor to facilitate innovation in pluralistic settings (Ferlie et al. 2005). Many school leaders also dismissed examples in which innovations had worked, arguing that the Manchester reality was a far cry from leafy Copenhagen neighborhoods¹⁰; one head said:

Planners wanted to push us into open plan labs...our head of science didn't dismiss the idea but was quite flabbergasted. We resisted that ..our science results have been exceptionally good. So why change for the sake of change? We don't want our children to be experiments

By far the most resistant school was David, the school with the highest academic performance. Here, the faculty leaders categorically ruled out the innovation agenda. Hence boundary demarcation succeeded to preempt many disputes but not all as we discuss later on.

Monitoring and Sanctioning

Commons theorists assume that some individuals have propensity to break rules if they believe they can get away with it. To prevent a vicious cycle of rule-breaking and conflict, commons theory claims that robust governance requires monitors and sanctions. This claim led us to uncover two sets of organizing structures that also contributed to preempt disputes.

In the Manchester case, monitors and sanctions existed at two levels: *third party reviews* of strategic design choice and *early involvement of implementers*. First, the UK government appointed a watchdog, CABE, to check the concept design during two “health-check sessions” that could last up to four hours. Money to finance implementation would not be released unless CABE gave the go-ahead. The possibility of CABE forcing *iterations* was a potential sanction that encouraged participants to think twice if they planned to deviate from the national mandate.

And second, the Council appointed builders (the ‘implementers’) to check if the agreed scope was aligned with the targets. The builders’ contract stipulated a target cost with a pain-gain

¹⁰ Hellerup school in Copenhagen is an open-plan school that was often cited as a model by proponents of the transformation agenda. See, for example, CABE (2009).

shared mechanism: If implementation overshot the planning targets, both Council and builders would share the burden. The builders operated under slim margins, and thus this sanction gave them an incentive to denounce any commitment to unrealistic goals that could cause conflict later on. Still many strategic disputes emerged, and we next explore how they got resolved.

Resolving Emerging Strategic disputes

Under pluralism, strategizing is inherently political and thus some conflict is inevitable. Management studies show strategic ambiguity and slack help to mask unresolved conflict (Denis et al. 2011, Jarzabkowski et al. 2010). In turn, Ostrom (1990) suggests that sustainable collective action requires mutual adaptation, affordable conflict-resolution structures, and proportionality between the costs and benefits for each participant. The three latter claims led us to uncover two first order sets of rules that we subsequently clustered under dispute resolution.

Adapting High-level Rules to Local Circumstances

The high-level rules in the Manchester case were hard to modify, but some self-organizing actions enabled to adapt the rules to resolve local issues. These actions do not suggest that the ‘teachers carried all the cards’ as one respondent claimed. But they show adaptation by *relaxing project targets, flexible interpretation of targets, and safeguarding competing choices*.

An example of relaxing project targets occurred in the realm of budget overrides. First, with the compliance of the Council leaders, the steering groups could bid for extra Council funds to finance green elements (e.g., bio mass boilers, rainwater harvesting). This occurred after the schools refused to sacrifice space for green elements. The design steering groups could also relax the budget constraint *if* the school self-funded the excess. In the case of David, for example, the school raised funds to refurbish old premises which had been earmarked for demolition. Newall, in turn, got a loan from the Council to finance a roof over the courtyard, a priority for the school: We were able to overcome them [budget constraints]...because our budget is healthy, because

we're a successful, thriving school...we wouldn't have that [roof over social space] unless we were able to raise the funding ... in some terms it's immoral we've to (Newhall deputy head)

The interpretation of the mandate to build open spaces offers a second example of adaptation. Schools like Gorton were on board with the government ideas. But other schools categorically rejected them preferring instead a traditional layout. These disputes put the Council staff between a rock and a hard place. In the end, the leaders worked out a 'creative solution' (Denis et al. 2011) that allowed for traditional layouts insofar their economical reconfiguration in the future was safeguarded. This went beyond the use of contractual safeguards to mask incompatible goals (Denis et al. 2011). Specifically, it required negotiating difficult trade-offs to invest in costly modular air-conditioning systems and no-load-bearing walls. These choices are instances of 'design safeguards', i.e., strategic design allowances built in to leave open a range of future scenarios in use (Gil 2007). The architect explained this logic for David:

What we tried to do is...to give them a building which has this flexibility, this potential...so they can take walls down...there are huge possibilities in that...We built that in the DNA...we balanced the particular needs of today, but built in flexibility for the future.

The adaptation of the high-level rules helped to resolve many disputes, but not all. Disputes rooted in mutually exclusive strategic design choices were particularly challenging. We explain next how the analysis of the most difficult disputes also suggests that dispute resolution involved postponement, rounds of face-to-face meetings, and a relationship of mutual deference.

Postponement, Face-to-face Interaction, and Mutual Deference

In a pluralistic setting diffused power precludes ruling by a dominant coalition (Denis et al. 2011). But how can defection be avoided when targets set ex-ante put pressure to make difficult decisions but the project participants are yet to converge? The analysis suggests that helping to hold people together under challenging situations were rounds of face-to-face talks, delays, and mutual deference. Deference involves postponement to create space for conflicting goals (Denis

et al. 2011), but also recognition of each other's authority to influence an indivisible outcome.

The cases of David and Abraham are telling. Both schools refused to sign off the initial plans proposed by the Council staff. The disputes were rooted in the lack of money to meet the schools' goal not to end up with a smaller building. Facing an impasse, the Council staff in the steering groups had no choice but to escalate the issues. The head of Abraham recalled:

We were told we weren't cooperating...I then wrote [the Council] a hard letter saying that I wasn't being uncooperative. I was actually doing the authority's job for them, to safeguard the youngsters' needs and make sure they had a viable school for the future.

Our findings suggest the authorities heeded to both sides. In the David case, the dispute was resolved by co-locating the high-school with a primary school and combining two budgets—but forging this solution was hard and strategic planning got delayed one year. Resolving the dispute at Abraham was even more protracted to the extent that the Council staff in the steering group lobbied the school's governors to override the school's veto ('a dangerous time', said the head). When push came to shove, the governors sided with the faculty. For its part, the authorities did not press the issue further despite real worries with loss of funding. It then took two years of talks to forge a creative solution that passed by co-locating Abraham with a school for special education needs, which added £2m to the budget and made it possible to build a bigger school.

These extreme examples suggest the emergence of a relationship of mutual deference where all parties were respectful of each other's position. For better or worse, the schools were part of the problem and had become part of the solution. But this inclusive approach led to variance in local outcomes, and suggests that a deeper look at how well the program performed is in order.

Adaptive Performance in a Pluralistic Project

In pluralistic organizations performance evaluation criteria are normative and can be set by one or several actors without one being superior to the other (Raab et al. 2015). There is only agreement that achieving the goal and innovation are as important as the participants' individual

satisfaction (Provan and Milward 1995, Ring and Van de Ven 1994). We built upon ideas to explore how the Manchester program performed. Table 2 summarizes the results.

<Insert Table 2 here>

The fact that the Council claimed the Manchester program was on target pleased the national government. And indeed, by 2012, all the 24 building projects (corresponding to 33 schools) had been delivered for £446.5m, a figure slightly below the £450m national grant awarded to the Council in 2006—“we must have done something right”, said one Council official, “no one can be lucky 33 times”. Both authorities were also happy that not a single school had defected. The school leaders estimated their input at more than 1,000 staff hours, with larger schools reporting a figure closer to 1,500 hours; school leaders found it frustrating to be called upon to work “for free”. But sharing power over strategic design choices was enough of a benefit to entice the schools to free staff; as a Gorton teacher said, ‘if it doesn’t work, it’s my fault’.

Still, aggregated results mask local variance and thus adaptive performance. First, there were local budget overruns such as David and Newall; they got masked because the schools made up for the shortfalls; green elements were also excluded from the budgets because they were financed by a separate pot; second, strategic planning for two projects (David and Abraham) was delayed; but both projects were in the first batch and there was slack to cope with the delays. Council officials also agreed strategic planning for the second batch was less complicated: a greater threat of losing funding if a scheme got delayed encouraged even more cooperation.

Third, there was variance in the extent schools were happy with governance and outcomes. A polycentric structure with capability for mutual adaptation created a lack of equitability. The leaders of Gorton were quite happy. But this school was fully aligned with the government’s ideas. The leaders of David were also happy, but this school had the wherewithal to fund extras,

and thus less need to compromise. In contrast, the leaders of a school like Mathews that lacked endowments were less satisfied; as one said, ‘we’re always robbing Peter to pay Paul’.

Fourth, there was variance in innovation. We assessed innovation by counting the number of modern labs and measuring the open spaces. As Table 2 shows, only Gorton embraced the government’s agenda for modern labs and open areas; a school like Newall, for example, bought into the idea of open areas but ruled out modern labs; Mathews was the other way around; and the locus of conservatism was with the other schools. One Council staff said about the whole program: “[apart Gorton] what we’ve got sadly...is a number of ‘new old schools’”.

Variance in innovation also led to variance in the degree of satisfaction of the architects. Hence, the architects found schemes like Gorton very rewarding (“the heads were great, we’re being exhorted to be transformational”), whereas other projects were less so (“if the school has its eyes closed, we’ll deliver a more traditional design”). As for the two builders we could not find data at project level. But in surveys of Key Performance Indicators, both builders and Council officials expressed satisfaction with the commercial relationship. The builders still lodged many claims for compensation during project implementation as abnormal costs emerged related to asbestos, ground conditions, and temporary facilities. But as Table 3 shows, the risk provisions that the builders asked to be built in strategic planning proved robust enough later on.

In sum, in the grand scheme of things the Manchester program seems to have done well. But although we did not encounter evidence of the authorities playing favorites, performance was adaptive: there was no consistency in yielding innovation, not all projects were delivered within the initial targets, and there was inequality in the satisfaction of the local stakeholders.

DISCUSSION

We now return to our overarching research questions: which governance structures can help to reconcile conflicting goals with the targets in a pluralistic project? And how can they be

created? In extreme pluralistic settings, power is diffused across actors with conflicting goals (Denis et al. 2011), and no ‘dominant coalition’ (Pettigrew 1973) has enough power to impose their preferences on others. Strategizing is thus inherently political (Jarzabkowski et al. 2010) and vulnerable to iteration, unrealistic consensus, and delays (Denis et al. 2011). And yet, for commons theorists, the leaders of these settings have reasons to be optimistic (Ostrom 1990).

The optimism of commons theory does not rely on slack resources (Cyert and Mark 1963) or strategic ambiguity (Denis et al. 2011, Jarzabkowski et al. 2010) to mask unresolved conflict. The optimism also does not hinge on plenty of time so participants can get embedded in the organization and engender creative solutions (Denis et al. 2001). Rather, commons theorists focus their attention on structures that encourage actors to cooperate. This perspective is thus complementary to management studies on the participation, communication, and symbolic devices that sustain pluralistic settings (Denis et al. 2011, Jarzabkowski and Fenton 2006).

Whilst communication and rhetoric devices were not the focus of this study, we could see how they were put to use in the Manchester program. For example, inviting politicians to open schools and inflated claims (‘We’ve combined the latest thinking around teaching and learning with innovative design’, said a Manchester report) were quintessential reification practices. There was also ambiguity in defining an innovative school or a budget; and a bit of slack to accommodate delays with the first projects. But our focus here, inspired by views of structure and action as mutually influencing one another over time (Giddens 1984, Ostrom 1990), was to explore how governance was created, and how it constrained and enabled strategic planning.

Creating a Robust Structure to Govern a Pluralistic Project

This study reveals a set of structures that are consistent with robust commons governance. They are complex, but as Ostrom (2010) says, complexity is not the same as chaos. Complexity theorists too claim it is not a good idea to impose simple structures on complex problems: too

many opposing forces, nonlinear relationships, and feedback loops cause simple solutions to backfire (Stacey 1995).

Central to the Manchester approach to governance is the transformation of strategic design choices into a common-pool resource. We trace this situation to the juxtaposition of ‘non-decomposable’ scope (Simon 1969) with institutionalized pluralism (exacerbated after the Council gave the schools veto power). The egalitarian orientation of commons governance is a species of democratic governance (Ansell and Gash 2008). But organizations with direct democratic forms of participation tend to face difficulties in scaling up and in managing complexity (O’Mahony and Ferraro 2007). In the Manchester program, the risk of chaos was mitigated by creating a polycentric structure that delineated authority over strategic planning.

A polycentric structure resonates with the idea of loose coupling to attenuate pluralism by segmenting work and allowing for professional autonomy (Orton and Weick 1990, Thompson 1967). In Manchester, project finance was the task of central government; managing project suppliers was the Council’s job; and defining scope was a shared problem. However, the reciprocal interdependency (Thompson 1967) between scope and the other strategic choices made it necessary to create a ‘negotiated order’ (Pfeffer and Salancik 1978) to strategize.

The challenge facing the Manchester leaders was to co-produce a scope definition within a highly constrained solution space. One cluster of organizing structures was critical to preempt widespread disputes. Designing these structures was an exercise of ‘collective leadership’ (Denis et al. 2001). Hence the national government set high-level targets and created one monitor (design watchdog) and corresponding sanctions. Council leaders delineated each school’s authority to their building, and introduced monitors (builders) and sanctions (pain/gain deals). And the steering group participants self-demarcated areas of scope that each party would control.

The interdependency between strategic choices led nonetheless to many disputes. In pluralist settings, strategic choices can be challenged at various levels (Denis et. 2001) and our case is no exception. Some schools' preferences for scope clashed with the Council's mandate. In turn, the Council's sustainability agenda was challenged a level above by the budget rule, and a level below, by the schools' priorities. Exacerbating the problems of pluralism was: i) the lack of slack to 'quasi-resolve' (Cyert and March 1963) disputes; and ii) difficulties to 'mask' (Denis et al. 2011) unresolved conflict because a defined scope was a pre-requisite to implement a project.

In agreement with commons theory, conflict resolution did not rely on interference by outsiders, a structure that creates a negative precondition for parties to self-cooperate and leads to fragile governance (Reilly 2001). Rather, the resolution of disputes relied on intense face-to-face communication, relaxing performance targets, and mutual deference. The governance thus helped to create capacity for mutual adaptation, but this had implications to project performance.

Adaptive Performance in a Pluralistic Project under Polycentric Commons Governance

Sustainable commons organizations require proportionality between the costs incurred by each participants and corresponding benefits (Ostrom 1990). This idea creates a challenge when extended to a pluralistic project. On the one hand, it suggests that for a common logic to flourish, every project participant needs to cede a bit. On the other hand, project 'success' in the eyes of third parties requires that participants stay as close as possible to the initial targets.

The way this tension played in our case links polycentric commons governance to adaptive performance. Adaptation is a property of complex systems in which interdependent agents adapt their behavior in response to environmental turbulence (Carney 1987), as well as to interaction and learning from each other (Anderson et al. 1999). Adaptation is often the outcome of self-organizing (McDaniel 2007). As the agents interact, they adapt by co-creating new rules to govern behavior and decision-making, and use emerging knowledge (Beck and Plowman 2014).

In the Manchester case, the leaders faced a stable environment apart the national election. Adaptation was an act of self-organizing in response to the politics of strategizing. Adaptation led to variance: innovation only occurred if there was consensus; only some projects stayed on target; and some projects pleased everyone and others not. This variance resonates with Cohen et al.'s (1972) notion of 'organized anarchy'. It also echoes with Shenhar and Dvir's (2007) claim that companies should embrace 'adaptive project management', and thus should elevate the need to meet the expectations of customers above normative pressure to do things to target.

The added challenge facing the Manchester leaders was reconciling adaptive performance with environmental pressure to keep the program to target. In pluralistic settings, numeric targets fill a strategic void created by goal ambiguity (Denis et al. 2006). For the Council, staying within target was essential to gain credibility to survive a potential change in policy. And yet, the Council needed to attend to the schools' interests. If a school defected, the Council would struggle to acquire their tacit knowledge of needs in use. Tacit knowledge is 'sticky' (von Hippel 1994), and could only be elicited and assimilated by having the teachers react to specific plans and explain face-to-face what they wanted. In the end, the schools' wherewithal made a difference in their latitude to influence the outcomes and in their satisfaction with the program.

The Context for Project-based Polycentric Commons Governance

Our logic linking polycentric commons governance to adaptive performance is grounded in our case, but results from using a cognitive lens that extends beyond our case. It is thus plausible that this logic can extend to other projects. Our findings also echo Pitsis et al.'s (2003) ideas of how intense interaction allowed the participants in an Olympic infrastructure project to coalesce their differences around a 'future perfect strategy'. But there is an important difference.

The notion of future perfecting presupposes that project participants are warranted freedom to plan. This idea resembles Beck and Plowman (2014) claim that collaboration can emerge as an

outcome of self-organizing actions without a plan or a designated leader, a study grounded on the Columbia Space shuttle response effort. In marked contrast, polycentric commons governance accepts that the participants are locked in high-level rules that are hard to modify. These rules give leaders legitimacy to acquire resources and achieve a goal beyond an individual's reach. But they can also be an obstacle to collaboration if they do not leave space for emerging needs.

If polycentric commons governance is robust, the structures and rules create enough space for self-organizing actions necessary for collaboration to flourish. Still, in a complex polycentric system, self-organizing actions occur in a highly constrained space. This creates a difficult balancing act between allowing for self-organizing actions to reconcile conflicting goals whilst delineating authority and setting boundaries about what is and is not permissible.

Hence it is fair to ask if polycentric commons governance could occur in a different project context. It is also fair to ask if our initial cognitive lens filtered out alternative explanations. In this section, we examine four contextual conditions that may have contributed to success of the Manchester program. These boundary conditions suggest opportunities for future research.

First, in our setting, technology and user needs were stable, a condition that is favorable for the effectiveness of 'hybrid' forms of governance between authority hierarchies and markets (Williamson 1996). Unstable requirements would create more pressure to relax targets. In airport projects, for example, the needs change rapidly due to technological progress and volatility in demand (Gil and Tether 2011). It thus remains indeterminate if a polycentric commons can reconcile evolving goals with environmental demands to keep a project on target.

Second, in our setting, strategic design choices were non-decomposable. But the Manchester program was modular, and the projects were loosely coupled to one another. System decomposability allows for decentralized decision-making without increasing managerial

complexity (Orton and Weick 1990, Langlois and Robertson 1992). System decomposability also makes unpaid contributions of resources (as teachers did) less risky (Baldwin and Clark 2000). A main reason is that, in small groups, people struggle less to establish awareness and consensus on the part of others on joint and self-interest objectives (Galbraith 1973, Van de Ven 1976). Strategic planning of a more integral system involves more interdependent choice, and it merits further research if polycentric commons governance can still produce positive results.

Another factor that is a potential contributor to the success of the Manchester program is the goal. The participants disagreed on scope but the goal to rebuild dilapidated schools was consensual. Unifying goals help actors to explore constructively their differences and search for win-win solutions (Gray 1989); they encourage even strangers to cooperate (Beck and Plowman 2014). In contrast, controversial goals spur participants to ask for more concessions in exchange for cooperation, and amplify the fragility of collective leadership (Denis et al. 2001, Gil and Tether 2012). Without a shared understanding of the problem, the risk of inaction and bitter fights is then much higher as typical of ineffective collaborations (Lawrence et al. 2002).

Finally, a fourth condition that arguably contributed to robust governance is the quality of leadership. Dahlander and O'Mahony (2011) argue that decentralized decision-making requires leaders capable to coordinate work without appearing to take charge. We did not touch here on the leaders' capabilities and personalities. But we found mutual respect amongst the Manchester leaders. The Council officials were admired for their history in delivering big projects; the school leaders' competence was also recognized. It is unclear if polycentric commons governance can be enacted if the leaders do not see on each other enough legitimacy to influence strategizing.

CONCLUSION

This study offers several contributions to the literature. First it extends commons governance theory, a research stream that has received little attention in management studies, to strategic

planning. Whilst designing structures to govern pluralistic settings is complex, it is an important leadership task (Denis et al. 2011, Clegg et al. 2002). Here, we propose a model that traces a successful project to a structure consistent with Ostrom's claims of robust governance. This insight suggests that polycentric commons governance can be instantiated in a pluralistic project

Second, drawing on an in-depth case study, we illuminate the logic behind a set of intertwined structures and rules that help to sustain a pluralist project. One cluster of structures aims at preempting conflict, and thus at avoiding contestation over every single strategic choice. A second cluster of rules aims at resolving emerging conflicts by creating capacity for mutual adaptation. Taken together, these structures and rules enable strategic choice to adapt to local interests without losing sight of the third-party expectations that the project stays on target.

And third, this study extends strategy-as-practice literature to pluralistic projects. The strategy-as-practice perspective calls for fine-grained, longitudinal studies that illuminate the social accomplishment of strategy (Whittington 2006, Wooldridge et al. 2008, Jarzabkowski and Balogun 2009). The aim is to illuminate how the tacit knowledge and competence of multiple actors contributes to outcomes. Extant studies shed light on how ambiguity and reification enable strategic choice under pluralism (Jarzabkowski et al. 2010, Denis et al. 2011). But deep-seated norms that define a 'successful project' complicate the use of strategic ambiguity: if the plans are off the mark, the project fails; if the strategic plans are reliable, the project succeeds.

To circumvent existing norms, one practice available to project leaders is to avoid getting locked in strategic plans (Pitsis et al. 2002). But this practice is hard to enact if the system-level goal is ambiguous—under conditions of ambiguity, strategic plans are necessary to attain external legitimacy and secure commitment of resources (Stone and Brush 1996). This brings to the fore the role of governance. Strategizing is a political activity, but governance has political

consequences too (Cyert and March 1963). Hence governance can undercut ‘destructive politics’ associated with power games and surreptitious backroom deals (Eisenhardt and Bourgeois 1989, Pfeffer and Salancik 1978). The governance of pluralistic settings is the focus of commons theory, but it was unclear how this research stream could enrich the debate on strategizing.

This study reveals a set of structures and rules that project leaders can choose to adopt to govern strategic planning. Strategizing under pluralism involves interactions and negotiations to reconcile different organizational value systems and mobilize multiple self-interested actors (Westley 1990, Whittington 2006, Jarzabkowski and Wilson 2002). In our case too, designing governance involved middle management at lower-level committees, elected leaders and top managers in Council boards, and the national bodies. This level of participation agrees with our understanding of the integrative effects of strategizing (Jarzabkowski and Balogun 2009).

In sum, we argue that polycentric commons governance can extend to pluralistic projects. We start by suggesting that strategic design choices can become a common-pool resource. We then uncover structures and rules that encourage cooperation and mutual adaptation. We show that polycentric commons governance enables to resolve conflicting goals whilst meeting third-party expectations, but leads to local variance in yielding innovation and satisfying stakeholders. And finally, we ask about boundary conditions. We identify potential to enact this approach if the requirements are stable; the system as a whole is decomposable; there is a unifying superordinate goal; and if the participants see in each other legitimacy to influence strategizing.

The design of governance is a strategizing outcome. If we accept strategizing is a skill that can be acquired individual and organizationally (Denis et al. 2007), project leaders can take inspiration from our study to design governance structures that fit with their particular contexts.

REFERENCES

Abdallah, C. Langley, A. 2014. The Double Edge of Ambiguity in Strategic Planning. J.

- Management Studies. 31 (2) 235-64
- Andersen, TJ 2004. Integrating decentralized strategy making and strategic planning processes in dynamic environments'. *Journal of Management Studies*, 41, 1271–99.
- Anderson, P., Meyer, A., Eisenhardt, K, Carley, K, Pettigrew, A. 1999. Introduction to the special issue. Applications of complexity theory to organization science 10 (3) 233-236.
- Ansari, S., Wijen, F., Gray, B. 2013. Constructing a Climate Change Logic: An Institutional Perspective on the “Tragedy of the Commons”. *Organization Science*, 24 (4) 1014-1040.
- Ansell, C., Gash, A. 2008. Collaborative Governance in Theory and Practice. *J Public Adm Research and Theory*, 18 (4): 543-571
- Astley, WG, Fombrum, CJ 1983 Collective strategy: social ecology of organizational environments. *Academy of Management Review* 8/4:576-587
- Baldwin, C, Clark, K. 2000. *Design Rules, Vol. 1, The Power of Modularity*. MIT Press.
- Barnett, M.L, King, A.A. 2008. Good Fences Make Good Neighbors: A Longitudinal Analysis of an Industry Self-regulatory Institution. *Academy of Management Journal* 51 (6) 1150-70.
- Beck, T.E., Plowman, D.A. 2014. Temporary, Emergent Interorganizational Collaboration in Unexpected Circumstances: A Study of the Columbia Space Shuttle Response Effort. *Organization Science*, 25 (4) 1234-1252.
- CABE 2009. Designing Schools the Danish Way, 360°, Issue 18 (Spring)
- Carney, MG 1987. The Strategy and Structure of Collective Action. *Organization Studies* 8, 341-62
- Clegg, SR, Pitsis, TS, Rura-Polley, T., Marosszeky, M. 2002. Governmentality Matters: Designing an Alliance Cultura of Inter-organizational Collaboration for Managing Projects. *Organization Studies*, 23/3, 317-37
- Clegg, S., Courpassion, D. 2004. Political Hybrids: Tocquevillean Views on Project Organizations. *J. Management Studies*, 41:4: 525-546.
- Cleland, DI, King, WR 1968. *Systems Analysis and Project Management*. McGraw-Hill, NY.
- Cohen, MD, March JG 1986. *Leadership and ambiguity*. New York. McGraw-Hill
- Cohen, MD, March JG, Olsen, JP 1972. A garbage can model of organizational choice. *Admin. Sci. Quart.* 17(1) 1–25.
- Cyert, R. M., J. G. March. 1963/1992. *A Behavioral Theory of the Firm*. 2nd ed. Prentice Hall, Englewood Cliffs, NJ.
- Dahlander, L., O'Mahony, S. 2011. Progressing to the Center: Coordinating Project Work. *Organization Science*, 22 (4) 961-979
- Denis, JL, Langley, A., Rouleau, L. 2006. The Power of Numbers in Strategizing. *Strategic Organization*. 4 (4) 349-377
- Denis, JL, Langley, A. Rouleau, L. 2007. Strategizing in pluralistic contexts: rethinking theoretical frames. *Human Relations*, 60, 179–215.
- Denis, JL., Lamothe, L., Langley, A 2001. The dynamics of collective leadership and strategic change in pluralistic organizations. *Academy of Management Journal*, 44, 809–37.
- Denis, JL., Dompierre, G., Langley, A. Rouleau, R. 2011. Escalating indecision: between reification and strategic ambiguity. *Organization Science*, 22, 225–44.
- Diehl, M., Stroebe, W. 1991. Productivity loss in idea generating groups: Tracking down the blocking effect. *Journal of Personality and Social Psychology*, 61: 392-403.
- Dietz, T, Ostrom, E, Stern, PC. 2003. The Struggle to Govern the Commons. *Science* 302:1907-12.
- DfES 2003. *Classrooms of the Future. Innovative Designs for Schools*, DfES, UK

- Eisenhardt, K.M. 1989 Building Theories from Case Study Research. *Academy of Management Review* 14 (4) 532-550.
- Eisenhardt, K.M., Bourgeois, L.J. 1988. Politics of strategic decision-making in high velocity environments: Toward a midrange theory. *Academy of Management Journal*,31: 737-770.
- Eisenhardt, K. Graebner, M. 2007. Theory building from cases: Opportunities and challenges. *Acad. Management Journal*, 50 (1) 25:32.
- Ferlie, E., F., L., Wood, M., Hawkins, C. 2005. The (Non) Spread of Innovations: The Mediating Role of Professionals. *Academy of Management Journal* 48(1) 117-134.
- Flyvbjerg, B., Bruzelius, N., Rothengatter, W. 2003. *Megaprojects and Risk: An anatomy of Ambition*. Cambridge University Press.
- Galbraith, JR 1973. Organization design: An information processing view. *Interfaces* 4(3) 28–36.
- Gersick, CJ 1994. Pacing strategic change: The case of a new venture. *Academy of Management Journal* 37(1) 9-45.
- Giddens, A. 1984. *The Constitution of Society*. Berkeley University of California Presss.
- Gil, N. 2007. On the Value of Project Safeguards: Embedding Real Options in Complex Products and Systems. *Research Policy*, 36 (7) 980-999.
- Gil, N., Tether, B. 2011. Project Risk Management and Design Flexibility: Analysing a Case and Conditions of Complementarity. *Research Policy*, 40, 415-428.
- Gil, N, Baldwin, C. 2013. Sharing Design Rights: A Commons Approach for Developing Infrastructure. Harvard Business School working paper, 14-025, January
- Gray B. 1989 Conditions facilitating interorganizational collaboration. *Human Relations* 38 (10) 911-936.
- Hall, P 1972. *Great Planning Disasters*. Berkeley, CA. University of California Press.
- Hardin, G. 1968. The Tragedy of the Commons. *Science* 162: 1243–1248.
- Hardy, C 1995 Managing strategic change: Power, paralysis and perspective. *Adv. Strategic Management* 12 3–30.
- Hargrave TJ, Van de Ven A 2006. A Collective Action Model of Institutional Innovation. *Academy of Management Review*. 31. 864-898.
- Hobday, M 2000. The Project-Based Organization: An ideal form for managing complex products and systems? *Research Policy*, 29 (7-8), 871-893.
- Hodgson, RG., Levinson, DJ., Zaleznik, A. 1965. *The executive role constellation*. Boston: Harvard Business School Press
- Jarzabkowski, P. Balogun, J. 2009. The Practice and Process of Delivering Integration through Strategic Planning. *Journal of Management Studies*. 46: 1255-1288
- Jarzabkowski, P. 2005. *Strategy as Practice: An Activity-Based View*. London: Sage
- Jarzabkowski, P, Fenton E 2006. Strategizing and Organizing in Pluralist Contexts. *Long Range Planning*, 39 (6) 631-648
- Jarzabkowski P, Sillience, JAA Shaw D 2010. Strategic ambiguity as a rhetorical resource for enabling multiple interests. *Human relations*, 63 (2) 219-248
- Jarzabkowski, P Wilson, DC 2002 Top teams and strategy as social practice. *J. Management Studies*, 37 955-77
- Jick, T. 1979. Mixing Qualitative and Quantitative Methods: Triangulation in Action *Administrative Science Quarterly* 24: 602-611.
- Langley, A. 1999. Strategies for Theorizing from Process Data *Academy of Management Review* 24: 691-710.
- Langley, A 1995. Between “paralysis by analysis” and “extinction by instinct.” *Sloan*

- Management Rev. 36(3) 63–76.
- Langlois, RN, Robertson, PL 1992. Networks and innovation in a modular system: Lessons from the microcomputer and stereo component industries *Research Policy*, 21 (4) 297-313.
- Latour, B. 1996. *Aramis or the Love of Technology*. Harvard University Press, Cambridge, MA.
- Lawrence, TB, Hardy, C, Phillips, N 2002. Institutional effects of interorganizational collaboration: The emergence of proto-institutions. *Academy of Management J.* 45 281–290
- Lawrence, PR., Lorsch, JW 1967. Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12 (1) 1-47.
- Libecap, GD 1989. *Contracting for Property Rights*. Cambridge University Press, UK.
- Lundin, RA, Söderholm, A. 1998. Conceptualizing a projectified society discussion of an eco-institutional approach to a theory on temporary organisations. In *Projects as Arenas for Renewal and Learning Processes*. Springer. US.
- McDaniel RR 2007. Management Strategies for Complex Adaptive systems. *Performance Improvement Quarterly*, 20 (2) 21-42.
- Morrow, EW 1988. *Understanding the Outcomes of Megaprojects: A Quantitative Analysis of Very Large Civilian Projects*. Santa Monica, Calif: Rand Corporation.
- Miles, M., Huberman, M. 1984. *Qualitative Data Analysis: A Source Book for New Methods* Beverly Hills, CA: Sage Publications.
- Miller, C.C., Cardinal, L.B., Glick, W.B. 1997 Retrospective Reports in Organizational Research: A Reexamination of Recent Evidence. *Academy of Management J.* 40: 189–204.
- Miller, R. and Lessard, D. 2001. *Strategic Management of Large Engineering Projects: Shaping Institutions, Risks, and Governance*. MIT Press 2001.
- Mintzberg, 1979. *The Structuring of the Organizations*. Prentice-Hall
- Morris, P. 1994 *The Management of Projects*, Thomas Telford, London
- Morris, PW, Hough GH 1987. *The Anatomy of Major Projects: A Study of the Reality of Project Management*. Wiley. Chichester
- Narayanan, V.K., Fahey, L. 1982. The micro-politics of strategy formation. *Academy of Management Review*, 7, 25–34.
- National Audit Office 2009. *The Building Schools for the Future Programme*. HC 135 Session.
- National Audit Office 2015. *Delivering major projects in government: a briefing for the Committee of Public Accounts*. Report by the Comptroller and Auditor General. 22 Dec
- North, D 1990. *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press
- O'Mahony, S, Ferraro, F 2007. The emergence of governance in an open source community. *Academy of Management Journal*, 50: 1079-1106.
- Orton, JD, Weick, K 1990. Loosely-Coupled Systems: A Reconceptualization, *Academy of Management Review* 37(2) 203–23.
- Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Actions* Cambridge: Cambridge University Press.
- Ostrom, E. 2005. *Understanding Institutional Diversity* Princeton NJ: Princeton University Press.
- Ostrom, E. 2010 Beyond markets and states: polycentric governance of complex economic systems. *The American economic review*, 100(3) 641-672
- Ostrom, V. 1972. Polycentricity. Presented at 1972 Annual Meeting of the American Political Science Association, Washington, DC, September.
- Ouchi, WG, Segal L. 2003 *Making schools work*. New York Simon & Schuster.
- Perrow, C. 1984. *Normal accidents: Living with high-risk technologies*. New York: Basic Books

- Pettigrew, AM 1973 *The Politics of Organizational Decision Making*. Taylor & Francis, London.
- Pfeffer J, Salancik, GR 1978. *The external control of organizations*. New York, Harper & Row
- Pitsis TS, Clegg SR, Marosszeky M, Rura-Polley T. 2003. Constructing the Olympic Dream: A Future Perfect Strategy of Project Management. *Organization Science* 14(5) 574-590.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology* (88) 879-903
- Provan KG, Milward BH 1995. A preliminary theory of interorganizational network effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly* 40 (1):1-33
- Raab, J, Mannak, RS, Cambré, B 2015. Combining Structure, Governance, and Context: A Configurational Approach to Network Effectiveness *J Public Adm Res Theory*, 25 (2) 479-511
- Reilly 2001. Collaboration in action: An uncertain process. *Administration in Social Work* 25(1):53-73.
- Ring, PS., Van De Ven, AH. 1994. Developmental Processes of Cooperative Interorganizational Relationships. *Academy of Management Review*, 19 (1) 90-118.
- Rittel, H, Webber, M 1973 Dilemmas in a General Theory of Planning. *Policy Sciences*, 4:150-169
- Ross, J, Staw, BM 1986. Expo 86: An escalation prototype. *Admin.Sci. Quart.* 31 274-297.
- Satwo, RL 1975. Value-rational authority and professional organizations: Weber's missing type. *Administrative Science Quarterly*, 20: 526-531.
- Scott, WR 1987 *Organizations Rational, Natural, and Open Systems* (2nd ed.) Prentice-Hall, Englewood Cliffs, NJ.
- Shenhar, AJ, Dvir, D 2007. *Reinventing Project Management. The Diamond Approach to Successful Growth and Innovation*, Harvard Business School Press.
- Siggelkow, N. 2007. Persuasion with Case Studies *Academy of Management Journal* 50: 20-24.
- Simon H.A. 1962. The Architecture of Complexity *Proceedings of the American Philosophical Society* 106: 467-482.
- Stacey, RD 1995. The science of complexity: An alternative perspective for strategic change processes. *Strategic Management Journal*, 16:477-495
- Staw, BM 1981. The escalation of commitment to a course of action. *Acad. Management Rev.* 6(4) 569-577
- Stone, MM, Brush, CG 1996. Planning in ambiguous contexts: the dilemma of meeting needs for commitment and demands for legitimacy. *Strategic Management Journal*, 17 (8) 633-652.
- Strauss, A, Corbin, JM 1998. *Basics of Qualitative Research*. Sage. Newbury Park, CA.
- Susskind L, Cruikshank J 1987. *Breaking the impasse: Consensual approaches to resolving public disputes* New York: Basic Books
- Thompson, J. D. 1967. *Organizations in Action: Social Science Bases of Administrative Theory*. New York: McGraw-Hill.
- Thomson AM, Perry JL 2006. Collaboration processes: Inside the black box. *Public Administration Review* 66(S1): 20-32
- Tuertscher, P., Garud, R., Kumaraswamy, A. 2014. Justification and Interlaced Knowledge at Atlas, CERN. *Organization Science, Articles in Advance*, 1-30.
- Van de Ven AH 1976. On the nature, formation, and maintenance of relations among organizations. *Academy Management Review*, 1(4):24-36

- van de Ven, A. H. 2007. *Engaged Scholarship. A Guide for Organizational and Social Research*. Oxford University Press.
- von Hippel, E. 1994. Sticky Information and the Locus of Problem Solving: Implications for Innovation *Management Science* 40 (4) 429-439.
- Westley, F 1990, Middle managers and strategy: micro dynamics of inclusion. *Strategic Management Journal*, 11, 337-51
- Whittington, R. 2006. Completing the practice turn in strategy research. *Organization Studies*, 27, 613–34.
- Williamson OE 1996. *The Mechanisms of Governance*. Oxford University Press, Oxford.
- Wooldridge, B, Schmidt, T, Floyd, S 2008. The middle management perspective on strategy process: contributions, synthesis, and future research. *J. of Management*, 34, 1190-221.
- Yin, R. 1984. *Case Study Research: Design and Methods* Los Angeles, CA: Sage Publishing.

Table 1- Description of the Projects embedded in the Manchester BSF Program Case

Project & timescale	School type	School context	Official assessment of school performance	Pressure on project budget	Consensus on Innovation
Abraham 2007-12	1200-place comprehensive co-located w/ community center	Deprived area 84% pupils from minorities	Good <i>This is a good school with a range of outstanding features, serving its community extremely well...an exceptionally inclusive school...</i>	Some (late) flexibility Allowance from co-location with SEN school	No School had closed open plan areas from 70s
Gorton 2006-08	900-place comprehensive	Deprived area <i>Over 50% pupils from minority groups</i>	Satisfactory [mainstream school] <i>Teaching is good... students' outcomes are satisfactory</i> Outstanding [SEN school] <i>School has profound and beneficial impact on students and their families</i>	Some flexibility Capital allowance from SEN co-location	Yes School faculties open to innovative designs
Newall 2006-08	900-place comprehensive co-located w/ SEN school, leisure center	Deprived area <i>40% pupils disadvantaged and vulnerable</i>	Outstanding <i>The care, guidance, and support provided are outstanding.... proven track record of turning around disaffection and ... under achievement</i>	Some flexibility Allowance from co-location status	No Faculties advocated traditional spaces
Matthews 2007-09	1100-place faith-based	Deprived area <i>35% students eligible for free school meals</i>	Satisfactory <i>School has a number of significant strengths, particularly in the quality of care, guidance, and support</i>	Very tight No capital allowance	Mixed feelings Some faculties happy to endorse innovative spaces
Paul 2007-09	900-place faith-based co-located w/ SEN school	Deprived area <i>Large influx of non-native students</i>	Satisfactory [mainstream school] <i>Pupils' personal development is satisfactory... quality of teaching and learning is satisfactory</i> Outstanding [SEN school] <i>Students leave confident, well-rounded</i>	Some flexibility Capital allowance from SEN co-location	Mixed feelings Some faculties happy to endorse innovative spaces
David	850-place	Privileged	Very good	Some (late)	No

2007-10	faith-based	area <i>Few students eligible for free meals</i>	<i>The school aims to meet the needs of students who would have gone to the independent sector were the school not to achieve high examination performance</i>	flexibility Allowance from co-location w/ primary school	School leaders took exception with innovative ideas
---------	-------------	---	--	---	---

Figure 1 – Data Coding Structure and Model of Polycentric Commons Governance

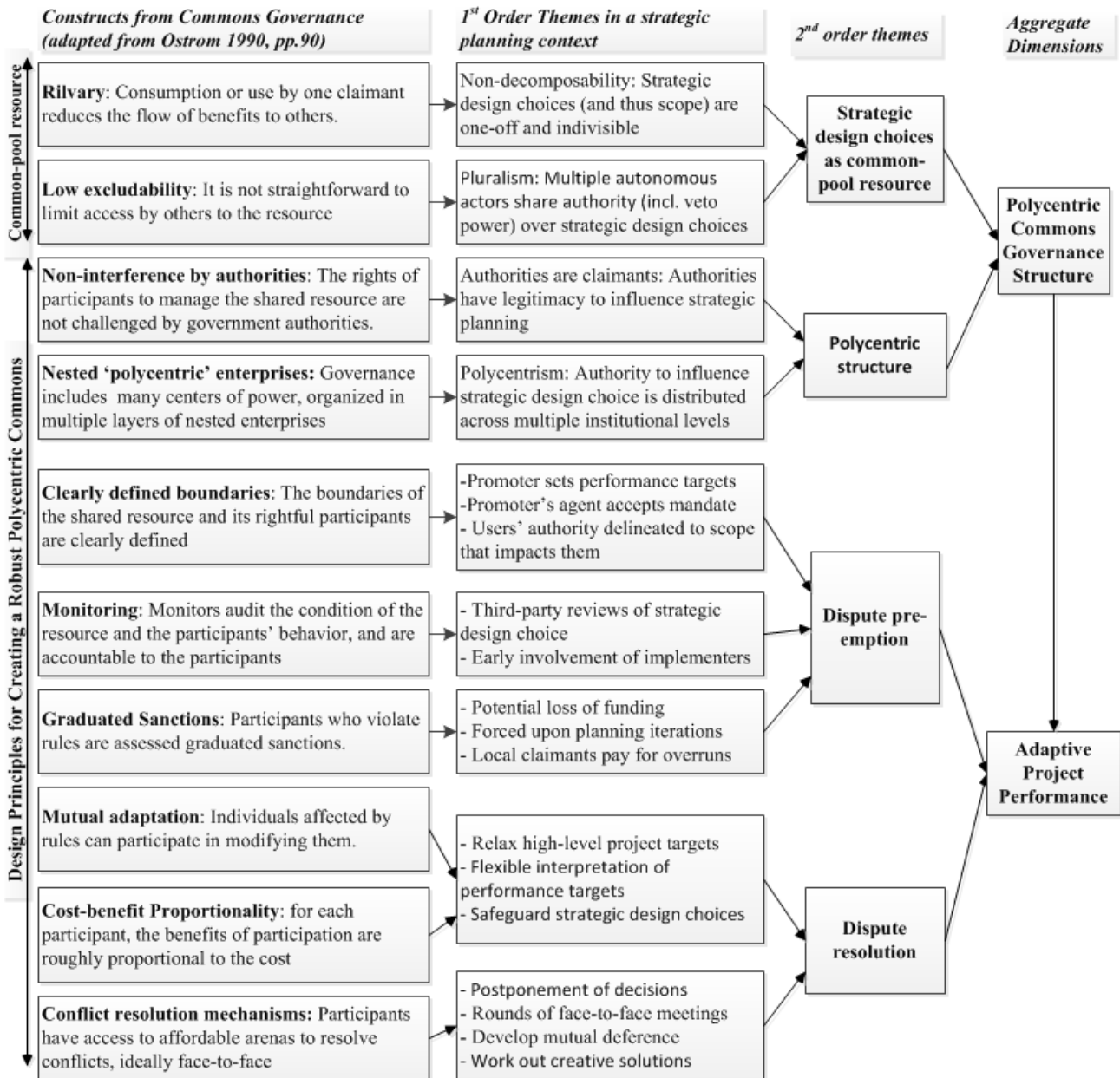
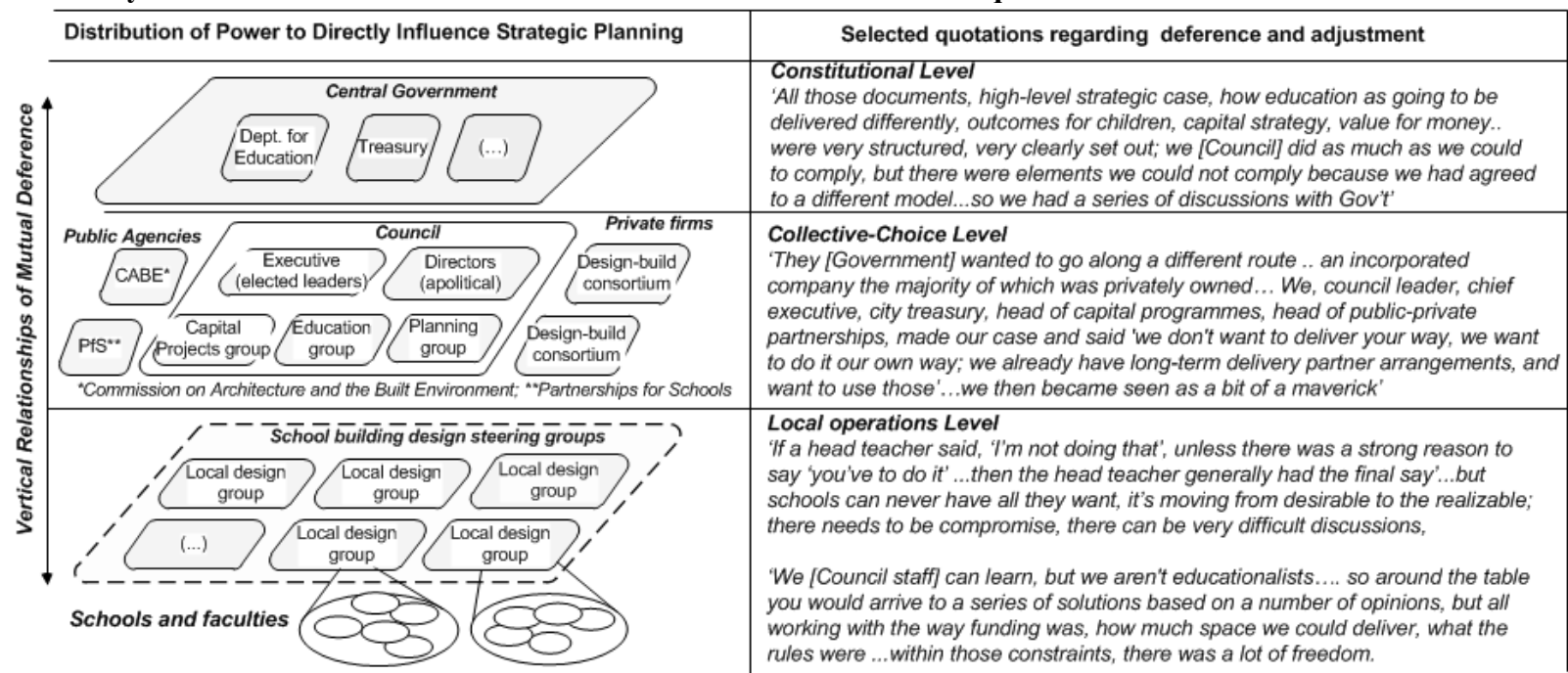


Figure 2 –Polycentric Commons Governance Structure: Schema and selected quotations



Typical Attendees of a Design Steering Group Meeting

School officials: Head teacher, Deputy head; heads of faculty; school governors; councillor (if a school governor)

Council officials: Program manager, project manager, architect, LTT (Learning Transformation Team) official

Private firm employees: architect, design specialists, construction manager, design manager, cost estimator

Table 2 – Summary of Evidence for the Evaluation of the Performance of the Manchester BSF Program

Project	Adoption of Innovative Choices	Actual Project Cost (\$)	Project Timescale	School leaders' satisfaction and example quotations	
				With the outcome	With the governance
Abraham	Traditional	Budget relaxed	Late	Very Positive	Negative with wave 1; Positive with wave 2
	100% traditional labs 94% traditional areas <i>We're a bit boring and traditional</i>	2006, £14.5m 2009, £16.6m : £15.6m + £1.0m (risk pot) 2012, £16.7m 60 compensation claims	2 years delay relative to original target	<i>It'll be a terrific boost. ...I feel very happy about it[Head]</i>	<i>[Wave 1] was a very difficult, really upsetting experience...I was bullied a bit, but they couldn't get me to agree to it....In wave 2 everyone understood our point of view.... there was a lot of negotiation, accommodating behavior by both sides...a lot of trust</i>

Gorton	Innovative* 100% modern labs ; 52% traditional areas; 48% flexible areas <i>We encourage teachers to take risks, but we're not frivolous</i>	Within initial budget 2006, £24.0m 2007, £23.6m: £21.8m (target) + £1.8m (risk pot) 2008, £23.8m 106 compensation claims	On time	Very Positive <i>A dream come true</i> [SEN Head] <i>Outstanding design</i> [Head]	Very positive <i>It was a fantastic process...I didn't necessarily have the power to reject some things, but often gave reasons why things should be different and people listened. It was a balancing act all the time ...bloody hard work</i>
Newall	Hybrid 100% traditional labs 55% traditional faculty areas 45% flexible areas <i>Whether open plan will work or not we still aren't sure; it was a risk</i>	Budget relaxed 2006, £16.4m 2007, £17.2m: £15.3m (target)+£1.9m (risk pot) 2009, £18.7m 63 compensation claims	On time	Positive <i>It's going to look really nice and practical</i> [Deputy]	Positive on balance <i>The process was as democratic as it could be.. there has been an awful lot of negotiation, and certain things have been absolutely no compromises...but the figures were shrouded in secrecy; if you're working together, and we worked quite well, you should be more transparent</i>
Matthews	Hybrid 100% modern science labs 74% traditional faculty areas; 26% flexible areas (master rooms) <i>Open plan was not the way we wanted to go...[but] we'll have modern labs, we don't always need Bunsen burners</i>	Within budget 2006, £18.2m (06 formula) 2007, £18.1m: £16.1m +£2.0m (risk pot) 2009, £18.2m (final price) 54 compensation claims	Largely on time ~3 weeks delay	Positive <i>We're going to have a wonderful school, a great opportunity for us all</i>	Positive on balance <i>The budget is too small, the whole building had to shrink in....on some days it felt we had no share of voice....can't believe on the 3rd day of my Easter holiday I'm still here. But the opportunity... is phenomenal</i>
Paul	Traditional 100% traditional labs 100% traditional faculty areas <i>my science dept. opinion is that if you call it a lab it should be fully equipped</i>	Within budget 2006, £24.4m 2007, £26.6m: £21.9m (target) + £4.6m (risk pot) 2009, £25.0m 106 compensation claims	Largely on time ~ 5 weeks delay	Very positive <i>We ended up with a good design</i> [Head] <i>Probably got 85% of our wish list</i> [SEN head]	Positive on balance <i>We were involved. There are always constraints when you actually build: ...You cannot argue with these principles [mainstream school] they couldn't have done it without us. ...it's quite an amazing thing to be entrusted, to put a massive input in a design [SEC school]</i>
David	Traditional 100% traditional labs 100% traditional faculty areas <i>We're proud of being an old new school</i>	Budget relaxed 2006, £19.8m 2009, £21.4m: £20.1m (target)+£1.3m (risk pot) 2010, £20.8m 198 compensation claims	Late ~1-year delay	Very positive <i>Our environment is very nice. The majority of the spaces are better than the [old] ones</i>	Positive <i>I think the process was successful. I didn't find much tension working with the Council ...as long as we were careful in explaining what we wanted...there were compromises</i>

(§) All prices presented in final (outturn) costs

(*) The amount of open space was cut down after the design watchdog expressed concerns that the design choices were 'too risky'