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Abstract:

Project Management is widely seen as delivering undertakings 'on time, in budget, to scope'. This conceptualization fails however to address the front-end and its management. Addressing this moves the discipline to a second, more strategic level. This paper proposes a third level of conceptualization: the institutional level, where management is focused on creating the conditions to support and foster projects, both in its parent organization and its external environment. Management here is done _for_ and _on_ the project rather than _in_ or _to_ it. We show that management at this level offers an enlarged research agenda and improvement in performance.

Introduction

While projects have existed, and have been managed, since the dawn of time, project management, in its modern form, as characterized by the language, tools, techniques and concepts that we now associate with it, first appeared in the early 1950s (Johnson, 1997). Since then, much has taken place to improve our knowledge about, and performance in, the management of projects.

The thrust of most work in developing the field has, quite naturally, been about what managers working on projects need do in order to deliver them successfully. Later we began to ask questions about what we really might mean by 'success' and, almost simultaneously, began to recognize the important role management has in developing the project's definition – in managing the project front-end.

This paper acknowledges an emerging third category in the development of project management thought: what we have termed, following Parsons (1951, 1960), the institutional level. We propose that project management can be thought of in terms of three levels, viz.,
- Level 1: technical: that is, operational and delivery oriented;
- Level 2: strategic: managing projects as organizational holistic entities, expanding the domain to include their front-end development and definition and with a concern for value and effectiveness;
- Level 3: managing the institutional context; creating the context and support for projects to flourish and for their management to prosper.

We shall now briefly review Levels 1 and 2 before moving to a discussion of Level 3.

Level 1: the Technical Level

The character of the project management discipline that emerged in the 1950s and early 60s was largely technical, both in terms of its engineering management character – combining project management, systems and engineering management (Hughes, 1998; Johnson, 1997) – and with a strong emphasis on managing technical issues, most notably via configuration management, and schedule urgency. (Morris, 1994, 2011). This latter emphasis was strengthened with the Department of Defense (DOD) mandating various tools and techniques – Work Breakdown Structures, Earned Value, PERT [-Cost], Value Analysis, etc – which have since become core to project management. Soon they were being required on NATO projects too.

Public interest in project management grew in the late 1960s on the back of the Apollo moon program and through the requirements of DoD, the rise of the matrix form of organization, and the growth of computing. The discipline was now strongly systems- and tools-based, often heavily bureaucratized, and essentially middle management in character (Baumgartner, 1979; Cleland and King, 1968). This difficult and exciting new landscape spawned a proliferation of seminars and symposia culminating in the establishment of the project management (p.m.) 'professional' associations such as the Project Management Institute (PMI) and the International Project Management Association (IPMA) around 1969-72, largely as 'talking shops' (communications fora).

Slowly, these societies matured into semi-professional bodies (Hodgson and Muzio, 2011). One of the attributes of professionals is evidence of the mastery of a distinct body of knowledge leading to a 'license to practice' - Certification. This obviously implies some definition of the knowledge area, a path mooted within PMI in the mid 70s (Cook, 1977). As a result, in 1983 PMI published its Guide to the Project Management Body of Knowledge (PMBOK®) leading to its certification program. Topics were selected for inclusion in the BoK on the basis of their being 'unique' to project management, as opposed to being more general knowledge. (It was not a guide to the knowledge you need in order to manage projects.)

Certification has proven incredibly popular and the *PMBOK Guide*® has become concomitantly enormously influential. As of March 2010, there were over 3 million copies of the PMBOK Guide® in circulation (PMI, 2010) with 375,959 people certificated by PMI as PMPs (Project Management Professionals). All over the world people (though by no means everyone) recognize PMBOK® as the model of project management. Yet there are several problems with it, not least important omissions, such as: strategy, value, and benefits; people issues (roles, such as the sponsor; and 'behaviours' such as leadership); technology management; estimating; and various matters relating to procurement (for example, partnering). It is strongly mechanistic – it can almost be used as a project management methodology – and its tone is decidedly normative. Although the user is encouraged to tailor the choice of topics and their application to fit the project's needs. It is difficult to know how or on what grounds to do so.

The content and principles embedded in the *PMBOK Guide*® were then, and we contend are still, strongly informed by the controlled environment, closed system, iron triangle, positivist, world of the 50s and 60s DoD and NASA project systems management – nothing wrong with that, so long as it fits its context and needs – though we should be careful to note that it does not mirror this world precisely.

The *PMBOK® Guide*, like *PRINCE2* (OGC, 1999) basically reflects the Level 1 paradigm: project management as a set of tools and processes that if applied properly should lead to project success (as pre-defined by the iron triangle: scope, budget and schedule). Its assumptions of rationality, objectivity and certainty run counter to much of what practitioners experience as the reality of projects; the complexities of their management go far beyond the reach of any toolset-driven approach (Laufer and Hoffman, 2000). Above all, the model of project management represented by PMBOK® is one of delivery execution: one where the requirements are defined, where the cost, schedule, scope and other targets have been set. It completely misses the developmental nature of project front-end management.

Level 2: the Strategic Level

Just as this new discipline began to emerge publicly in the late 60s and 70s, project failures seemed to increase, both in numbers and visibility. In some cases, projects failed precisely because they lacked effective project management – Concorde for example. But in others, although DoD 'best practice' was being applied, the model didn't work. Concorde's American rival, the US SST, was managed using DoD systems but with no effective stakeholder management – which led in 1970 to Congress withholding funding support and the project's cancellation (Horwitch, 1982). Even DoD programs experienced problems, particularly of technology selection and proving, project definition, supplier selection, and above all concurrency (Morris, 1994).

To add to this, as the 70s moved into the 80s and beyond, the environment that project management operated in became increasingly complex. The requirements of, and/or opportunities in, for example, Health, Safety and Environment, risk and opportunity, value and benefits, ICT, new Supply Chain methods of management (most notably partnering), and new ways of procuring (e.g. PFI and PPP) progressively built a landscape where behaviour and conceptual ability were as important as technical and commercial finesse. This more demanding environment, coupled with the challenges, and high rate of failure, of projects in many technology-demanding sectors such as nuclear power, oil and gas, software, and weapons systems, stimulated a number of what Jugdev and Müller (2005:25) termed Critical Success studies that collectively were to build to a new perspective for addressing projects and their management.

An early review that was to have an important impact on the profession in the UK via the Association for Project Management (APM) in shaping its Body of Knowledge in the early 90s (APM, 2006; Morris et al., 2006) and on the IPMA via its Competency Baseline (Pannenbacker et al., 1998) was the analysis of project success and failure by Morris and Hough (1987). Reviewing studies on 1,653 projects they showed that typical sources of difficulty lay well beyond the topics identified in the PMBOK model of project management – unclear objectives, changing sponsor strategy, poor project definition, technology difficulties, concurrency, inappropriate contracting strategy, unsupportive political environment, lack of top management support, funding difficulties, inadequate manpower, and geophysical conditions. Recommendations thus focused around aligning the project strategy with the sponsor's; managing technology; influencing stakeholders; establishing an appropriate commercial platform; scheduling; leadership and teamwork; and ensuring appropriate governance and control. And doing all this in the project definition stage as well as in the down-stream execution phases.

Subsequent studies – for example, The World Bank (1997) on development projects, Miller and Lessard (2000) on very large engineering projects, Flyvbjerg et al. (2003) on transport

projects, Grün (2004) on 'giant' infrastructure projects, and Meier (2008) on US defense and intelligence projects – reinforced these points, and in particular the importance of managing the front-end (Williams et al., 2009). The focus in all these studies was what had to be managed in order to develop and deliver the project successfully – something bigger than just delivery execution management. This enlarged perspective became in time, we believe, a new paradigm for the discipline.

To reflect this focus on the project as a whole, Morris termed this broader perspective 'the management of projects' ('mop') – the project as an organizational entity which has to be managed successfully within its business and social context (Morris, 1994) – a conception which while possibly attractive descriptively is very broad. More poly- than pan-theoretic, 'mop' emphasizes several principles (the front-end, context, people, etc.) but is not built upon such strong theoretical orientations as others that now came along, such as the Scandinavian School's actor orientation and, particularly, 'projects as temporary organizations' (Packendorf, 1995; Lundin and Söderholm, 1995), or Shenhar and Dvir's (2007) emphasis on contingency theory, or program management, or critical chain project management.

The 'management of projects' approach reflects a focus on both management by the project management team (PMT) and other actions – for example, enabling activity in the enterprise's environment. In this paper we propose splitting out the work required in shaping the project's environment – its context. Work done on the project institutional context we have called, following Parsons (1951/60), the institutional level. The focus at Levels 1 and 2 – the technical and strategic levels – is on what managers need to do working <u>within</u> the project to shape and deliver it – driving the project forward through its development life-cycle. Level 3 is about management <u>on</u> or <u>for</u> projects as opposed to management <u>of</u> or <u>in</u> them; management outside the project but in its environment, aimed at developing the enterprise's institutional ability to manage projects effectively.

Level 3: the institutional level

Project management research has been criticised for its tendency to treat projects in isolation (Engwall, 2003; Söderlund, 2004), although recent research has begun addressing this. The importance of context for example is empirically examined in work on fit between project type and organisational structure (Hobday, 2000), tools and processes (Dvir and Shenhar, 1998; Besner and Hobbs, 2008), and leadership styles (Müller et al, in Press; Malach-Pines, 2009).

Engwall (2003) extended the criticism by showing that projects are shaped in particular by institutional factors such as experiences from past activities, politics, and institutional norms, values and routines, an argument also developed by Hodgson and Cicmil (2007) and Kadefors (1995). We are extending Engwall's critique by proposing that there is benefit in focusing management attention to the development of an appropriate institutional context for projects, rather than being about the activity of managing projects *per se*. We seek also to acknowledge the institutional level as an emerging distinctive area of research.

The conceptualisation we are offering builds off Parsons' three 'levels of rational action' (Parsons, 1951: 549; 1960: 63) and his distinction between the 'outer' and the 'inner' nature of these levels. The first two levels, the technical and strategic, operate within the project. The third, the institutional level, is outside and around the project. Parsons is no longer as vogue a thinker as he was 50 years ago and such top-down theorising is not as popular today as it was then but this distinction between intra- and extra-project management work in contributing to improved project performance is, we believe, potentially a powerful one.

The essence of Level 3 compared with Levels 1 and 2 is thus as follows.

- Level 1 is a predominantly technical – that is, operational and delivery oriented – function. The key concern is with how to deliver projects efficiently: 'on time, in budget, to scope'. Knowledge, practice and research at this level tends to a largely normative and positivist position. Practice is biased towards techniques and processes and reflects the 60s DoD and NASA systems project management, though not exclusively so.
- Level 2, the project's strategic level, looks at managing projects as organisational holistic entities, expanding the domain to include their front-end development and definition and protecting the technical core from environmental turbulence. Work at Level 2 recognises the relationship between the project and various stakeholders' strategies (not least the sponsor's). There is a strong concern for value and effectiveness.
- Level 3 is the 'institutional' level. This is about developing an appropriate institutional context for projects and programs in order to enable them to succeed and enhance their effectiveness. Management at Level 3 is primarily concerned with improving success not of a specific project, but of projects be them in the enterprise's own organisational environment, i.e. projects in the parent organisations, or the wider environmental context within which the project is located; or both (Figure 1). Work at this level can be through rational 'hard' mechanisms such as processes, standards, guides, but it also addresses 'soft' aspects of the institutional context, such as social contracts, behaviours, culture, etc. It takes place outside of individual projects' or programs' individual management issues but predominantly in their institutional environment. It is concerned with the management _for_ or _on_ projects as opposed to management _of_ or _in_ projects. In recognising the role and opportunities for management at Level 3 the focus switches "from organizations in their environment to the organization of the environment" (Scott, 2008: 436).

<Figure 1 about here>

Since context covers more than institutional issues, why are we focussing now just on the institutional? For two reasons, each the flip-side of the other: (1) this generally is the most tractable to p.m. intervention (2) other contexts, for example, the economic may be beyond the ability of p.m. staff to influence.

Inevitably, much of the research done so far on managing (or influencing) the institutional context has focused on Level 1 project management. Even Winch (2010), while overtly taking a 'Management of Projects' stance, treats the institutional context of construction projects as largely given (ibid: 11). However, we do not lack evidence supporting the need to explore the institutional level as mentioned earlier (Engwall, 2003; Hobday, 2000; Pellegrinelli, 2002), it is also worth mentioning Cooke-Davies (2002)'s work on critical success factors, which proposes three types of success – project management success, project success and consistent project success – has implications at all three levels. The first concerns the technical level, the second involves the strategic level, while achieving consistent project success ultimately calls for work at the institutional level.

Analysing the institutional level

The remainder of this paper explore the thesis that there is value in seeing the institutional level as a fruitful, powerful unit of analysis in project management practice and research. Our

contention is that institutional issues are important to the long-term performance of projects; that there is benefit in recognizing them as a group; and that there are theories which apply at this level in ways which are distinctive and useful.

One obviously relevant theory is institutional theory, which explores how organizations gain, and maintain, their characteristics (Scott, 2008). This will be seen, not surprisingly, to have a special richness, but it is NOT THE (only) theoretical lens appropriate for analysing Level 3 concerns – though it is useful. Sociology, Economics, Law, Geography, Politics, Statistics offer many different theoretical frameworks, which are at times relevant.

The following examples are discussed as illustrative of our argument:
- The interaction between context and the enterprise's attempts to establish 'best practices' and organisational learning;
- The institutional challenges of the p.m. professions;
- The challenges of governance, and in particular the role of the sponsor;
- The interaction between context and organisation structure, in resourcing, and in managing external groups;
- Portfolio management and the political context;
- The role of leadership in the above.

In each, we acknowledge the work of scholars to date and look at potential opportunities, both for practitioners and researchers. In all cases we note, implicitly or explicitly, that there is an important potential two-way interaction between actors and their environment in shaping the enterprise's structure, designing its processes, promoting its practices and behaviours, shaping policy and standards, and influencing stakeholders and decision-making; doing so with the express purpose of improving (the capability of) project management. This we address overtly in the section on leadership.

‘Best Practices’ and context

It seems obvious, given the work that has already been done here (Hobbs and Aubry, 2008), to start with the PMO (Project or Program Management Office). Empirical research has shown that PMOs take many forms, from administrative support, to becoming a centre of excellence, to a full organisational function with responsibility for managing and delivering projects (Hobbs and Aubry, 2008). What seems to be consistent across all empirical studies and textbooks is that PMOs emerge from the need to create a standing platform and systems for projects that survive beyond the project lifecycle – be it human resource management, reporting systems, quality assurance, etc. Over the last decade or so, PMOs have in this way had a growing place in promoting the institutionalisation of project management knowledge, for example in defining 'best practices', developing methodologies, selecting practices, and organising training. Most of its work tends to be, with few exceptions (O'Leary and Williams, 2008), highly normative due to the very nature of these entities however (e.g. Hill, 2004; Dai and Wells, 2004) and contextualisation remains a challenge.

The 'nctp' (novelty, complexity, technology, pace) model of Shenhar and Dvir (2007), probably the most well-known contingency model in project management now, is project-specific, its contingency variables focussing on the technical aspects of managing projects. Other recent frameworks have attempted to provide broader conceptualisations of context (e.g. Geraldi and Adlbrecht, 2007). However, like Shenhar and Dvir's, the work has been at the project, not the institutional level.

Interest in maturity models has grown considerably in recent years. Such models suggest that levels of an organisation's project management capabilities can be demonstrated by climbing pre-defined maturity ladders. But most maturity models are focused on operational issues and under-acknowledge human dimensions; they tend to reflect commonality and standardisation of practices rather that innovation and creativity (Judgev and Thomas, 2002). And crucially there is little or no attempt to acknowledge the significance of context.

In fact, the question driving the work on maturity models, PMOs and project typologies frameworks such as the 'ncpt' – how to provide and develop organisational capabilities to support and enable project success – is central to Level 3, and currently remains unaddressed to any real length or depth. The subject cries out, one would think, for an analysis along the lines of Scott's three 'pillars' of institutions – regulative, normative and cultural-cognitive, following DiMaggio and Powell's (1983) levers of order: coercive, normative and mimetic – as applied across a variety of mechanisms, 'logics', and emotions (Scott, 1995). To the best of our knowledge such a study has yet to be published.

Organisational learning

A particular challenge of the institutional level is how the enterprise can best gather, organise, deploy and use knowledge and improve its organisational learning, the concern being the long-term health and stability of the enterprise. This is a well-trodden area particularly in the tacit-explicit transformative process (Nonaka and Tageuchi, 1995; Wenger, 1998) and sense-making (Weick, 1995) in many ways prefigured by Berger and Luckman (1967) with their emphasis on reification of learning. But despite all the academic work in this area, organisations still face substantial difficulties in learning from projects (Love et al, 2005; Williams, 2008). There is still a tendency to emphasise the recording of explicit knowledge whereas tacit knowledge is widely seen as more valuable (Morris and Loch, 2004). Recent work drawing on institutional theory is however offering a richer analytical framework.

Grabher and Ibert (2011) have applied the notion of organisational ecology to organisational learning with the concept of 'project ecology': the layers of 'relational space' — the core team, the firm, the epistemic community, and personal networks — which together constitute "the personal, organisational, and institutional resources for performing projects" (Grabher and Ibert, 2011: 176). They show how together these shape project learning often well beyond individual project lives.

The project management professional bodies

The professional associations have played a central role in the development of project management, and at institutionalising what is understood as the discipline (Hodgson and Cicmil, 2006). The role of professional bodies and issues connected with their work are of concern at Level 3 (Hodgson and Muzio, 2011; Morris et al., 2006). For example, in what sense should a 'Body of Knowledge' for project management be conditional? How flexible should its structure and contents be to keep up-to-date with research? How valid as a 'licence of competence' is certification, particularly in a learning-as-doing environment such as that represented by project management (Cook and Seeley-Brown, 1999)? How should 'reflective practitioners' (Schön, 1983) position any disagreement with p.m. 'standards'? What does a professional standard of professional conduct mean? (Say in dispute with the sponsor?) Should project management ever have the professional sanction of say the company auditor?

Sponsorship and governance

The 'critical success factors' studies (see above) found that the behaviours, expectations and demands of individual managers acting in the sponsor role can strongly influence the rigour and structure with which project management practises are applied – yet there has been little work done to address this. Hertogh et al. (2008) provide a useful summary of the different roles of the sponsor – and the delivery – organisations for large infrastructure projects and Miller and Lessard define four broad areas of sponsorship competence (ibid: 29-31) but in reality the role of the sponsor is often complex and not well-defined, particularly in public sector projects (Altshuler and Luberoff, 2003; Flyvbjerg et al., 2003).

Critically, the sponsor will often have to balance project-oriented decisions against (parent) company concerns. (For example, what would sending this project back for further work do to the company's share price?) How many organisations compromise their project management performance by under-educating their sponsors in the management of projects' principles and by not aligning the sponsor's goals and incentives with the project's?

Similarly, the actions and demands of the Board in exercising governance, for example in ensuring enterprise-project strategy alignment, assessing risks, requiring independent and third-party reviews (Peer Assists etc.), can significantly influence project management behaviour and performance (APM, 2006; Müller and Turner, 2010). In reality, the client, owner, sponsor, stakeholder – 'governmentality' (Clegg et al., 2002) – area is often complex yet is crucial to the effective management of projects. Much lies within the sponsoring organisation itself, but that doesn't necessarily make it more tractable.

Project structure and context

At the heart of Level 3 is a concern with the interplay between agency and institution. This is a particular interest of contemporary institution theory, not least in Giddens' (1979) structuration theory. Contingency theory has been a long-standing interest of project management theorists since at least the work of the 60s and 70s on integration (Lawrence and Lorsch, 1967; Thompson, 1967/2003; Galbraith, 1973; Mintzberg, 1979), and as further developed by Larson and Gobeli (1989), Wheelwright and Clark (1992) and more recently Hobday (2000) and Engwall (2003), as we noted earlier.

While much research in the area still remains engrained with the issues of matrix structures (Davis and Lawrence, 1977), more creative forms of structuring are now offering managers new opportunities, for instance, 'programmification' (Maylor et al, 2006), or networks (Pryke and Smyth, 2006; Grabher, 2002). Externally, Level 3 offers much richer structuration possibilities.

While a simple view of managing single projects – Level 1 – encourages a mono-organisational perspective centred on 'the project', in fact it soon becomes apparent, because of subcontracting or matrix-type arrangements, that the project's management must deal with several organisational groups external to the home project organisation. At Levels 2 and 3 the number of such external groups can expand significantly (Grün, 2004). They may be stand-alone organisational networks or constitute clusters in the neo-institutional sense of 'sets', or 'fields' (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). They may be 'above' projects but bear on them (e.g. banks, regulators) or relate directly to them (as with supplier framework agreements or stakeholder management). They may exist already as in the case of the Hollywood film cluster (DeFillipi and Arthur, 1998); or be being formed through economic or other stimuli (Manning et al. 2010); or be specially created, either by the project (Level 2) or the enterprise for the project or program (Level 3), as for example in organising

construction supply chains on a local geographic basis to minimise the project's Carbon footprint.

Each of these groups exists in an organisational context – an environment – which may influence the project significantly. The potential for management to shape the interactions and contexts within which such groups operate has not yet been researched comprehensively or systematically. We are only beginning to understand and exploit such formal and informal structures.

Strategic resourcing and procurement

A fundamental challenge in projects and a major pre-occupation at Level 3 is resourcing – ensuring the right competencies will be available and suppliers engaged on the best terms. While this is also a concern at Levels 1 and 2, at Level 3 the driver is more strategic – a combination of organisational stability, resilience and order in the one hand, and adaptability and innovation in the other – often in a context of social or economic or general change. It is also often organised outside of the individual project (and hence beyond Levels 1 and 2).

Penrose (1959) argued that growth is the result of particular groups of individuals; and that since there is an obvious limitation to what these individuals can cope with, and, as even the integration of new recruits takes time, the speed at which firms can grow is constrained by the resources available. Management at the Level 3 thus has as a major task the building of a portfolio of resources (Davies and Hobday, 2005), and identifying and developing the enterprise's core project management competencies at the organisational level (Prahalad and Hamel, 1990, Jugdev, 2004), as well as competent people. Hence we see a growing interest in employment and career development issues in a project context (Ekstedt, 2002; Heumann et al, 2004; Söderlund, 2000)

Many resources will be procured via contracts, again by Level 3 groups external to individual projects ('Contracts & Procurement'). There has been a major shift in project procurement practice over the last 15 to 20 years from transactional tendering to a more relationship-based form of contracting and supply chain management (Smyth and Pryke, 2008). Yet the move is not permanent nor without its critics. In a cost-cutting move, the British Airports Authority for example, one of the UK champions of partnering has recently reverted to open-tendering. Academic work has been slow to engage in this argument. The trouble is that relational alignment between members of the supply chain, along the lines charted by e.g. Bresnen and Marshall (2011), Clegg et al (2011), Manning (2008), Miller and Lessard (2000), Smyth and Pryke (2008) and others, while making obvious intellectual and emotional sense, often ignores pressures to reduce transaction costs (Stinchcombe and Heimer; 1985; Williamson, 1975). Researchers have largely ignored this challenge.

In similar lines, resource-dependence theory (Pfeffer and Salancick, 1978) proposes that firms may be dependent on external resources over which they have varying control. In a projects context, this means that project managers can make use of their resources to exert power over their context, as shown for example by Cox (1999, 2006).

Integration of external groups

The impact of 'outside' groups and issues on projects has long been recognised as important, e.g. Raborn working Congressmen's districts on Polaris (Sapolsky, 1972: 47-49); Apollo keeping TV cameras despite weight challenges (Brooks et al., 1979: 266). The need to know and address the project's stakeholders, many if not most of whom will be 'external', is now a

mainstream project management practice: stakeholders can even be seen as a form of client (Newcombe, 2003). Current stakeholder management practice revolves around mapping stakeholder influence (Littau et al, 2009). There is room to go beyond that however. Institution theory would suggest that there could be rich potential in using Scott's 'pillars' (Scott, 1995) to study how best to engage stakeholders. Orr and Scott (2008) for example showed how costs rose on 23 large projects "after failing to comprehend cognitive-cultural, normative, and/or regulative institutions in an unfamiliar societal context" (Orr and Scott, 2008: 562).

Then there are institutional functions which need integrating with project management. Is Estimating part of the project or not? It is clearly a critical function yet it is often located 'outwith' project management. (Kahneman's advocacy of the estimator taking an 'outsider's' view of the project clearly resonates – Kahneman and Lovallo, 1993.) Is Estimating a Level 1, 2 or 3 activity? The same applies, often, to Contracts and Procurement, even though the form of contract and the conditions under which it is administered generally have a powerful and direct influence on the way projects are managed.

Another critical 'outsider' group in many project-based enterprises is Marketing and Sales. Problems of M&S 'selling' the project at an unrealistic price or delivery date, having had little or no consultation with the Project Management department, are common. Equally common can be the failure of the Project Management department to get to the sponsor, to listen and gear execution according to a mature understanding of the client's requirements over, above and beyond the minimum requirements/brief documentation as gleaned through business development. This sounds like a Level 2 point but the institutional effect, of knowing the client at a deeper, more tacit, Level 3 enterprise level can be very powerful for the project (or the portfolio). As project-based firms though become more established and markets less fragmented, firms start to identify the importance of relationships and partnerships over transactional approaches (a Level 3 preoccupation).

Managing portfolios at the societal level

Classically, portfolio management is concerned with the disposition of assets in terms of their potential reward and the risk they individually and collectively represent, and the amount of work (resources, capabilities, etc.) that developing and servicing them will require. Thus for example, portfolio management of drugs in a pharmaceutical company's development pipeline involves assessing views on clinical efficacy, competition, risks, potential sales volumes, and pricing. The management regime and activities involved in bringing emerging candidate drug projects through the evolving portfolio is done really <u>on</u> the projects rather than in them. As such Portfolio Management is a Level 3 activity. Managing the development pipeline in a medium to large pharma involves a network of committees making portfolio and governance decisions at Level 3 on a systematic and frequent basis that may directly impact the company's Level 2 and I project management (Foulkes and Morris, 2004).

Sometimes management of the emerging projects in the portfolio needs more direct intervention. Sometimes it isn't clear if it should or not. In the built environment, population growth is pushing housing demand, upping power requirements, increasing carbon emissions, and exacerbating problems associated with food, water and waste. Such challenges are now widespread, whether countries are rich and investing heavily, or poor and working with scarce resources; free-market based or planned. Bringing candidate projects forward amid this conflux of needs and opportunities is a major challenge. How effectively is it managed?

In the UK, the Government relies heavily on 'market forces', bolstered with a planning regime providing regulations with approvals delegated to the local level except for major projects, coupled with some p.m. assistance (methodologies and stage-gate reviews). Is this environmental context adequate? Some think not: a recent report on land use called for decision-making to be more integrated, with "sufficient oversight … that greater coherence and consistency is achieved" but questioned how centralised this should be (Government Office for Science, 2010:35). In China, urban development is managed more centrally and directly. So too, if one is not too unfortunate, should be the response say to emergencies (hurricanes, earthquakes). Clearly political context plays a decisive role (Bremmer, 2010). Management should try and shape this environment (Manning et al., 2010); research needs to understand it better (Altshuler and Luberoff, 2003; Feldman and Milch, 1982; Mintzberg, 1979).

<u>Leadership and management</u>

All these examples stress the importance of leadership. We are used to thinking of leadership at the intra-project levels: establishing strategy, forming teams, making decisions, etc. Leadership at the institutional level is similar but operating at the enterprise or enabling level – for example leading on the development of organisation's mission and vision, and of technology strategy, optimising capital allocation, maintaining project management integrity, ensuring an appropriate contracting and procurement environment, and providing and nurturing competent personnel, developing a culture driven towards the performance of projects, and adequate funds, in a timely manner, looking for opportunities to improve short and long term performance internally and externally, promote relevant organisational change, challenging the status quo and help the organisation to adapt to shifts in wider context. Leaders can, as powerful organisational actors, work with and through organisational structures and routines (including 'hard' mechanisms, such as Health and Safety, Capital Expenditure Approval, reward systems and human resource policies to 'soft' aspects, such as stories, images, belief systems), to shape their own version of institutional culture. They thus contribute to a social capital which can then be leveraged by projects.

Large, complex and urgent projects and programs invariably need a leadership which connects project issues to other organisational and institutional needs. Major projects and programs for example often require significant leadership skills in managing strategic-institutional issues such as joint venture arrangements, addressing politicians and regulators and influencing stakeholders. In the military, generalship involves developing and implementing a strategy for the prosecution of objectives set by others (politicians) and is a natural outgrowth of an officer's training and career development. Why shouldn't the same argument apply for project and program management? Doing so means, *inter alia*, understanding (and acting) the management challenges at all three levels.

Conclusions

This paper has suggested a three level framework, foreshadowed by Parsons' 'levels of rational action', for conceptualising the management activities needed to develop and deliver projects successfully. The first two levels, the technical and strategic, operate within the project, *technical* representing the delivery-execution core, *strategic* setting up this core (the project) and shielding it from environmental disruption. The third, the *institutional* level, is outside and around the project. Managing within this third level is to work <u>on</u> or <u>for</u> projects; managing at the other two levels is to manage <u>in</u> them.

We have explored examples of how institutional issues shape the project management domain and have suggested a number of research issues and opportunities at this level: in the development of organisational capabilities; the role of the sponsor and governance; project ecology; contracting and resourcing strategies; and working on sets of projects, as in portfolio management, supply chains or p.m. communities such as craft groups or the professions.

Central to effecting much of this is leadership. Leadership is important at all three levels but at Level 3 it has a particularly strong role in steering the interaction between a context that shapes management and a management that shapes context. Practically, we see leaders growing as they experience increasing responsibility. Addressing and enlarging the development of project leaders would, we contend, as an institutional act, make a substantial impact on most organisations' performance and practices. We also suggest the need for other senior leaders (not necessarily only project leaders) within the organisation to recognise and have experience in project management in order to understand its complexities and be in a better position to develop a context for projects.

The prize is that by seeing the institutional level more clearly as a separate area of enquiry we will understand more fully how we can improve the performance of projects. And that those working at Level 1 and Level 2 will be able to see more clearly how their work is conditioned, constrained and supported by the environment around them. Creating a supportive institutional context for projects and its management to flourish in is at the heart of what Level 3 is about.

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Level 1: the technical core: like medics in a hospital, or workmen on a building site. Project management was initially very technically biased and in that it is still seen as heavily execution-oriented, it has, at this Level, a predominantly technical character

Level 2: the strategic envelope: Parsons (1951, 1963) called this level 'management'- buffering the medics, organising the supply of materials to the building site, etc.. In projects, Morris (1983) suggested calling this 'strategic' to capture the front-end project definition stages where the execution targets are set
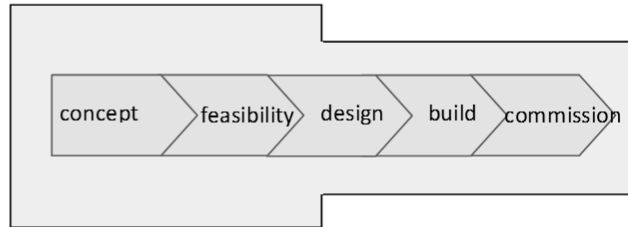
Level 3: the institutional context: management here is concerned with ensuring the long-term p.m. health of the organization. Work will be in the 'parent' organization and/or in the environment that the project is operating

External environment

Examples include 'set' level portfolio management; stakeholder management; organizational networks and clusters; and the professions

Home ('parent') environment

Examples include the role and p.m. education of sponsors; governance; shaping and implementing best appropriate practices; integrating related functions (e.g. Marketing & Sales); learning and knowledge management.

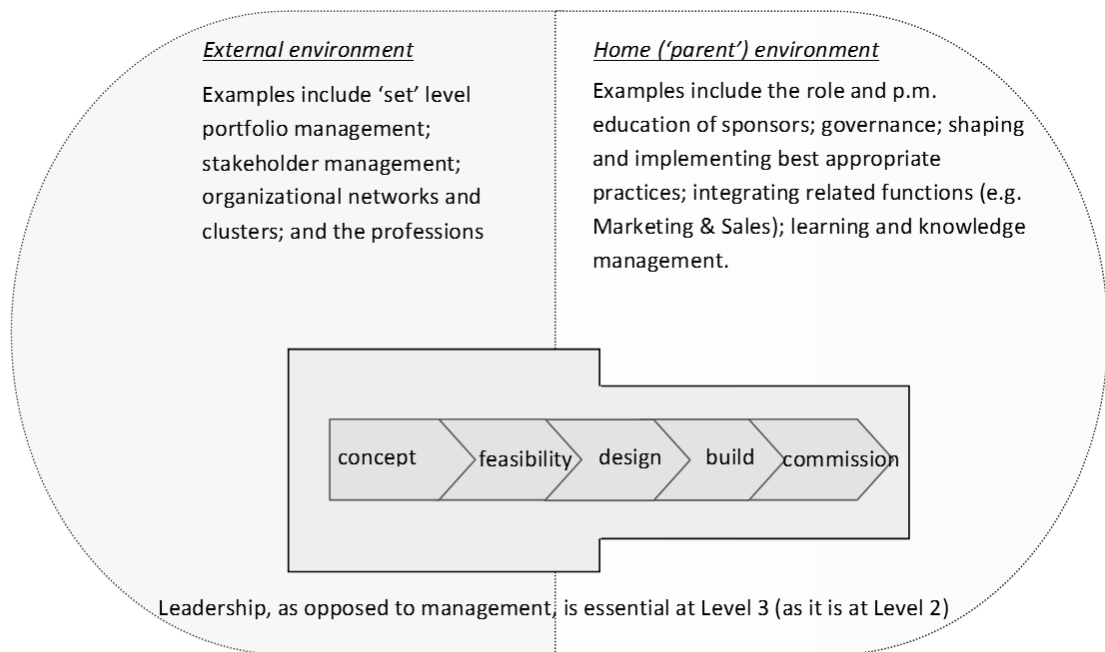Leadership, as opposed to management, is essential at Level 3 (as it is at Level 2)

Figure 1: Parsons' three levels in terms of managing projects