

## Working but Threatening? On the Trade-Off Between Efficiency and Legitimacy in the Design of Knowledge Transfer Methods in Project Management

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### ABSTRACT

This text reports on a knowledge-broker implementation in the R&D function of a large firm. Results show that the knowledge-broker method created and diffused knowledge and that project managers appreciated it. At the same time, line managers were not that appreciative, and the method was eventually abandoned.

We discuss the difficulty for knowledge sharing methods to be both efficient and legitimate, meaning that some methods would be okay by management, but they would not be efficient. Others would work, but management would be uncomfortable sponsoring them. We discuss whether this is caused by a divide between line management and the project organization. Then, we discuss how a different leadership style would influence the sharing of knowledge.

Keywords: project management, organizational politics, knowledge broker

### 1. INTRODUCTION

The development of new products or services is knowledge-intensive work, often performed by means of development projects. A common way to regard development projects is that they are the organizational entities that produce the design of the product or service; this viewpoint focus on what is delivered in the end. An alternative viewpoint would be that development projects are reducing uncertainty by creating the knowledge required to form a concrete project deliverable out of an abstract idea or concept (Nonaka, 1994). In this regard, development projects create knowledge.

At a closer look, development projects don't necessarily produce products or services. In manufacturing organizations where R&D is separated from production, development projects can be expected to produce specifications on how to manufacture the product. For instance, and in the context from where data is collected for our study, the pharmaceutical industry, a product development project would produce documentation on the description of the chemical formulation and the process of how to make a tablet out of it. A development project would also have produced a number of project process documents required to receive funding for further execution in the hosting company's project stage model, or continued support from external clients and interest holders (Maylor, 2010). Thus, such development projects create knowledge and deliver it in form of documents.

Considering this, a remarkable oddity is the reported inability of projects to capitalize on what is commonly called 'lessons learned' in other projects, and their inability to produce documents of their own lessons learned (Rhodes & Dawson, 2013). A number of inhibitors to the sharing of knowledge have been reported. For instance, Hinds and

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Pfeffer categorize inhibitors into cognitive and motivational ones (2003); thus, there is a difference between project members not knowing what they have learnt, and project members not wanting to report what they have learnt. Successfully sharing knowledge would also require somebody wanting to learn, and some authors argue that the lack of motivation to receive lessons learned is in fact a greater obstacle than motivating experienced project members to tell what they have learned (e.g. Dixon, 1999). While some authors regard knowledge as a commodity that can be shared once it is externalized, other authors note that knowledge is power and that that quality would influence an organization's ability to share it. In our literature review, we have found that much literature regard this power quality of knowledge management to be marginal, if at all mentioned. An exception where this issue is described to a somewhat larger extent is the comprehensive Wiley Guide to Managing Projects (Morris & Pinto, 2004), where a chapter of 16 pages is dedicated to the topic of project reviews. In this chapter, the author offers practitioners to follow "the best known rule of structured walk-throughs" of projects – never to allow senior managers to attend project evaluations. Furthermore, its "rationale is obvious. How honest will project team members be in describing the problems they are encountering if the people who determine their salaries and career development are sitting in the room?" (Frame, 2004, p. 1207). To us, it reveals a paradox of organizational learning practice; 'if my boss will learn about it, I won't tell that I got the opportunity to learn'. Subordinates' interests of opportunistic, secret-keeping behaviour has been described by organizational theorists (Downs, 1967; Jacobsen & Thorsvik, 1998) and researchers of organizational politics (Buchanan & Badham, 2008; Wickenberg & Kylén, 2007). However, perhaps this 'rationale' is not that obvious, as secret-keeping behaviour need to be covert in order to work up. We regret that Frame does not extend his observations to describe how the lessons learned should be kept from bosses' eyes, or alternatively, how they can be turned into knowledge that does not threaten the self-interests of the project members.

Also practitioners' attitudes to knowledge sharing may be puzzling. Hellström et al (2001) reported on a case where a large software-developing firm happened to replace a database-centered approach to knowledge sharing between projects with one based on a human knowledge broker, finding that the latter was a much better-working solution when it comes to the amount and the quality of the information shared between projects. When we contacted that company as a preparation for our study, we found that the knowledge broker solution had been abandoned. We then contacted a number of the interviewees to find why the solution had not prevailed. They didn't know why. Interestingly, none of those who had made career moves to other companies had made attempts to introduce the solution there. At the time, Hellström et al predicted that the power base of the knowledge broker would be difficult for management to accept.

In line with the reasoning of self-interests presented by Hellström et al, and using the organizational learning theories of Argyris and Schön (1996), we further the investigation of power-sensitive knowledge sharing methods. We do this by exploring a case of a firm, where a knowledge sharing method was introduced in its multi-project based development organization. The knowledge-sharing method, here called PIA as an acronym for Project Initiation Audit, puts its emphasis not at the closing phase but the startup phase of projects, by encouraging newly appointed project managers actively investigating lessons learnt from others. PIA uses knowledge brokers who are instructed to put their emphasis on the sharing of relational skills including organizational politics. Similar to the case reported by Hellström et al (2001), the use of PIA was eventually abandoned, and no similar method replaced it.

## 2. LITERATURE OVERVIEW

### 2.1 THE MANAGEMENT OF PROJECTS

There are abundant textbooks on how to better manage projects. Critics, including members of the so-called ‘Scandinavian School of project studies’ (Cicmil & Hodgson, 2006, p. 116), argue that such normative textbooks over-emphasize process definitions aiming to standardize the repetitive components of project management. According to its critics, the normative textbook school of project management argues that project execution is to be monitored through the application of steering groups, reviews and toll gates, all designed to prevent the project from deviating from its plan, set within its trio of limits; i.e. time, resources and functionality (Engwall, 1995). Project managers are taught to put a heavy initial emphasis on the project’s scope and demarcations to prevent later deviations (Halman & Burger, 2002; Kreiner, 1995).

However, unique work is difficult to standardize. The textbook school has been criticized for viewing projects as tools and not as organizations, thereby failing to recognize their ability to learn (Packendorff, 1995) and innovate (Ekvall, 2000; Hatchuel, Masson, & Weil, 2001). Innovation usually occurs during the design phase, which practitioners of project management have a tendency to rush past (van den Honert, 1992; Turner & Cochrane, 1993). A few mechanistic approaches have been applied to the design phase; the stage-gate model was designed to prevent premature commitment to designs which have not been sufficiently appraised (Cooper, 1988; Hosking & Morley, 1991). Some design decisions may nevertheless have to be based on uncertain grounds when stage-gate meetings turn into arenas not for information-sharing but for impression-making (Cooper, 1999). Bad decisions made early on during the execution of a project are unfortunately difficult to change, since the decision-makers tend to stick more rigidly to the chosen path after a serious investment has been made (Brockner, 1992; Staw, 1981). Hellgren and Stjernberg (1995) found that the initial design phase of important projects is “fuzzy” and hard to capture, as opposed to the implementation phase, which is of a more hierarchical and plannable nature. In fact, Nobelius and Trygg (2002) argue that there is little use in trying to standardize the design phase, and that there is a need for more managerial flexibility during this phase. Olin and Wickenberg (2001) found that project managers of new product development projects might need to take some political action in order for their projects to be successful; they need to navigate their projects past obstacles created by the administration of their own companies.

In conclusion, critics of the textbook school of project management argue that it is of little use to apply the mechanistic formal planning approach to the early phases of projects (Hellgren & Stjernberg, 1995; Nobelius & Trygg, 2002), and that managing uncertainty, through mastering the politics of the project context, is the essential thing for the project’s, and the project manager’s, success (Buchanan & Badham, 2008). This would call for project methods which aid project managers to become rapid learners in a context characterized by technological and organizational uncertainty, and which would recognize the project manager as an actor in a network of different interest holders.

### 2.2 Managing learning in and between projects

Using the categorization of Hinds and Pfeffer (2003) above, we divide inhibitors into cognitive and motivational ones; project members may not know what they have learnt, and project members may not want to report what they have learnt. Another categorization is the main directionality of knowledge sharing; that is, a project member

receiving knowledge learnt by others, or offering to share knowledge learnt to others (Dixon, 1999; Roth, 2002).

An explanation for Hinds and Pfeffer's cognitive inhibitor to learning is to be found in Argyris and Schön's theories on organizational learning (1978). According to this, we humans do not fully see things as they are in actuality. One reason for this distortion of reality is that the external stimuli recognized by our senses are compared to schemas (action theories) stored in our memories; the appropriate perception of the schema suddenly pops into our awareness. Like a theory, a schema embodies assumptions, which we take as givens with complete confidence. This lets us make interpretations that outstrip the immediate evidence from our senses. This cognitive shorthand lets us navigate our way through the ambiguity which we confront in the world (Goleman, 1986). One important area of distortion is our own actions. Argyris and Schön call our view of how we act espoused theories and how we really act theories-in-use. The distortion, i.e. the difference between the espoused theories and the theories-in-use, is greater under some circumstances than others. While day-to-day work creates a low level of distortion, it is increased by uncertain issues which are embarrassing or threatening. Distortion creates a dilemma; on the one hand, we don't want to be immobilized by giving too much attention to our actions, while on the other, our actions are likely to be ineffective. The irony is that we are usually more aware of other people's inconsistencies while they are producing them, and we are aware that they are unaware. According to this theory, we are regrettably not particularly effective in helping others to gain awareness, as we are unaware of our own ineffectiveness while trying to be of help (Argyris, Putnam, & Smith, 1985).

Members of organizations are prevented from learning because of defensive reasoning and routines, especially occurring during threatening situations (Argyris, 1990). This way of thinking includes the three action values; seek to be in unilateral control, win, and do not upset people. These strategies, which Argyris labels Model I reasoning, are often enacted in a quick and skilled way, making its actors unaware of what is going on and preventing any inquiry which could have created a better understanding. Luckily, there are remedies. To support learning, actors need to replace Model I reasoning with Model II reasoning, which consists of two action strategies; advocate your position and encourage inquiry or confirmation of it (by making public the reasoning that led us to our standpoint), and minimize our face-saving of others (thereby increasing feedback on distortion). Thus; Argyris' argument is that if we can create a climate where we can abandon Model I reasoning in favour of Model II, we will better be able to help each other reduce distortion, i.e. our understanding of which actions we really perform, thereby increasing the efficiency of our actions.

Several methods have been developed based on learning through reflection. In Action science a mentor supports a group of subjects in analysing past social events in order to increase reflection upon what has occurred and help them develop alternative actions in such situations (Argyris et al., 1985). Action science is criticized for, among other things, exposing participants and making them vulnerable following intervention (Kemmis & McTaggart, 2000). Ollila (2000) describes an application of a reflective coaching method, Reflective Project Leadership, based on Schön (1991), where the actions of a project manager are questioned by an observer. Ollila reports that initially the responses of the project manager are swift, but after a few sessions, he starts to reflect upon why he is taking certain actions. The observer refuses to give any kind of advice, instead the manager is asked to reflect upon why certain actions triggered certain responses from other actors. Reflective Project Leadership aims to create reflection using the non-initiated observer as a catalyst. However, reflection does not

necessarily require interaction with other people; the writing of self-reflective journals is one example of such a method (Loo & Thorpe, 2002).

### **3. METHOD**

The purpose of the empirical study was to investigate how the PIA method deals with the following; (i) is there a need for reflection regarding the items of the project manager's two agendas; (ii) do project managers accept the support of the PIA auditor and is Model II reasoning achieved, and (iii) will management deploy PIAs? The data collection method was semi-structured interviews of seven project managers and five line managers in the organization where PIAs were deployed. Three project audits and a self-narrative were recorded. Six of the interviews were performed by another researcher who interpreted the data together with the author. A survey was conducted by management at the case company to benchmark the PIA method; its results are reported here.

Validation of the interview process, i.e. investigating whether the collected data and its analysis were reliable, was done in three steps. The interviews included questions regarding the validity of the interview series, and this data was analysed for its manifest content, again using the same procedure as when analysing the research questions. The second step was analysing the interview process itself. The author took on the role of insider/colleague (Bartunek & Louis, 1996; Roth, Sandberg, & Svensson, 2004) and listened from the beginning to the end of all the recorded interviews while asking himself the question; 'do I believe these responses from this interviewee not to be coloured by my own involvement'. Finally, the interpretations were scrutinized by two fellow researchers.

### **4. FINDINGS**

#### **4.1 The case company and the PIA method**

The method was developed in the IT function at an R&D unit (the Company) of a corporation. The Company has grown from 1,000 to 2,000 employees over the seven years during which the method was in use. Of these employees, between 70 and 160 have been working in the IT departments. About 80 PIAs have been performed in collaboration with about 50 different project managers, of whom about a tenth have been contracted consultants.

According to its developer, the PIA method aimed on giving project managers a possibility to reason and reflect upon all issues of their projects, including those that cannot be discussed openly. The basic idea was to create a dialogue climate where errors or obstacles can be discussed without loss of face or performance of organizational politics. The PIA method was described in company-internal documents with the following characteristics:

1. Is sponsored by the CIO and his management team
2. Supplements existing quality assurance for project management
3. Is performed twice during the duration of each project; once during the early phase, and once during the closing phase (note: during the pilot reported upon in Table 1, it was only performed during the early phase of each project)
4. Takes less than two hours to perform
5. Staged for two participants; the project manager and the auditor

6. Unilaterally confidential (the auditor cannot disclose project-specific information to others)
7. The auditor is powerless and non-influential outside the PIAs
8. Aims at increasing project performance by enabling lessons learned between projects and improving risk management.

There is a difference between the two records of the aim; as it was told by the PIA developer, and as it was described (8) in the company-internal document. Interestingly, the latter was written the very same person. The PIA developer calls the former aim the ‘actual’ one, and the latter aim the ‘formal’ one. He believes he would not had been successful receiving management support for the method had he used the actual aim as the formal one. Secret-keeping seems, however, to have been done in agreement with line management. They did sponsor the method, and remarkably, the CIO of the Company publically supported the unilateral confidentiality of PIA, by instructing his reporting line managers to never make inquiries what their project managers were discussing during the PIA audits.

According to the PIA designer, the unilateral confidentiality is core to the design of PIA, as it prevents the PIA auditor from sharing with others his observations of the project and its project manager, and leaves the project manager in full power to manage such impressions. This unilateral confidentiality comes with a twist. It regards information of a level of detail that would make it possible to identify the project or its project manager. Thus, the PIA auditor wrote periodical reports on overall observations of the projects made during the PIAs. These reports were distributed to the CIO and his management team, as well as the project managers of the Company.

#### 4.2 The Company’s pilot evaluation of PIA

After the expiry of its first two years of evaluation, management investigated the performance of the PIAs using a simple survey consisting of three questions (see Table 1). The questionnaire was sent to those IT project managers who had experienced PIAs and who answered the call made by the administrator performing the study. Fourteen project managers were absent or failed to answer the call. Of those who answered the call, all responded to the questionnaire.

**Table 1 - Project managers' perception of PIA (# of respondents)**

<b><i>In what way did PIA affect your task?</i></b>	<b>Yes, definitely</b>	<b>Yes, to some extent</b>	<b>No</b>	<b>Unsure</b>
<i>Did you experience improved control over your task?</i>	11	5	0	0
<i>Did your task become easier to perform?</i>	4	7	0	5
<i>Did the task result in improved customer profit?</i>	1	3	2	10

Management interpreted this result as positive and institutionalised PIA to be run during the initiation of all IT projects.

The interview series shows that management is supportive of PIAs. One manager said that he authorized PIAs because they give project managers a second chance; project managers are “often flattered” when they are offered a new project and this prevents

them from scrutinizing their project properly. PIAs provide an opportunity for newly appointed project managers to better reflect upon the feasibility of the project idea. The manager said that a bad project concept would be easier to reject or improve if the project manager would hear the auditor say ‘this project would be hard to conduct for anybody’.

The interviewed line managers explained their support of PIAs in terms of its ability to create reflection and support the project managers during the important early phase of a project. Most managers mentioned that they trusted the project managers; one of them put it like this:

*I believe the employees try to do their best, and if [PIAs] are an unconventional way of helping them, well then I think it is a good idea to carry out [PIAs], compared to formal audits. [... Formal audits] make people feel scrutinized and they are not perceived as supportive. Helping the projects is what it's all about. In the end, everything is about improving our results, our projects.*

#### **4.3 The auditor's view of PIA**

According to the PIA auditor, the typical PIA is initiated by the project manager, who contacts the PIA auditor to make an appointment for an audit sometime during the initial weeks following the assignment of the project. During that call, the auditor makes sure that the project manager is informed as regards how a PIA is performed, also asking for any documents describing the project. The common document for this purpose is called ‘Project Description’, which states the name of the client ordering the project, the purpose and effects of the project together with the proposed staffing, and descriptions of identified dependencies and project risks.

Before the meeting, the PIA auditor reviews the documents and makes marginal notes of obscurities as well as the perceived strengths and weaknesses of the project initiative. When the audit starts, the auditor makes sure that the project manager is aware of the purpose of the audit and that the auditor is subject to unilateral confidentiality. The purpose of the audit is to improve the project manager's awareness of the characteristics of the project assignment by means of exposing the proposed project (and program) design to the different perspectives of another mind. In order to do this effectively, the auditor mainly focuses on the potential weaknesses of the project design.

The project manager is asked to describe what is happening as regards the project. This description usually takes between five and twenty minutes and covers most of the project description document. The auditor will listen for cues concerning any problems or worries which the project manager has regarding the project.

From this point on, there is no standard flow of dialogue. Two paths are eventually trodden; the auditor will investigate the concerns of the project manager, and elucidate any remaining concerns of his/her own. Only sometimes do these paths cross. According to the auditor, he tries to strike a balance between inquiry and advocacy, depending on the perceived strengths and weaknesses of the project manager. The overall purpose of all inquiry is to allow the project manager to reflect over each important design decision, and that he/she has identified a few alternatives for each major choice. Occasionally, the project manager has already reflected and is well aware of the alternatives. At other times, the project manager has not reflected, sticking to taken-for-granted project designs. Reflection is created through questioning the chosen path and comparing it with other possible paths (“Tell me why you chose... What will happen if ... Have you considered ... “)

Concerns raised by the project manager are usually obstacles to project initiation or, more frequently, project execution, e.g. “How can I get them to understand that...” or “A member of the steering committee is resisting my project...”. Typical concerns of the auditor include the overall project design, dependencies, risk management, and most importantly, if there is ‘a bias to the concerns of the project manager’, thus if there are areas of interest which the project manager has not considered.

According to the auditor, the intention of the unilateral secrecy of the PIAs is twofold. Its intention is to encourage project managers to be honest about the state of their projects and to avoid any embarrassment. It also seeks to improve innovation; any idea that is created during an audit can be used by the project manager as his/her own, regardless of which of the participants invented it. The secrecy is unilateral in that the project manager can conclude any part of the audit at his/her own discretion.

*I remember an audit when the project manager and I tried to figure out what the customer of this process-change project really wanted the project to do. It took us almost half an hour of analysing the project directives to realize that there was no reasonable deliverable to provide. The project customer had provided a text of management mumbo-jumbo that initially fooled us both. The project manager returned to the customer with the argument that neither of us could find a meaningful path for running the project. I think that this would have been a less pleasant message to deliver, had the project manager lacked support from another person. [... Also,] the fact that PIAs are institutionalised may help us to avoid embarrassment here; the project manager has not asked anybody for a second opinion, but has been forced into it.*

The confidentiality is not necessarily needed to keep secrets but help disarm defensiveness:

*You could say that most of the things we talk about could be made public, things which wouldn't embarrass or hurt anyone. But I think that the overall confidentiality is one reason why project managers let go of their defensiveness and end their attempts to make a good impression. Only a few project managers have discussed things clearly needing to be kept secret from people outside of the project, for the overall good of the project. But there is a grey zone of topics which are not necessary to keep secret but which would cause a stir if they became public, e.g. how to handle relations with those in power and how to persuade hesitant people to support the project. [...] And, of course, most project managers seem to maintain a can-do image.*

It seems that it is of importance that PIA is an arena set for two persons:

*Three times, project managers have brought a project member to the PIA with bad results. I remember the first time – the audit turned into a disaster. It was the only time the discussion became argumentative, when we ended up arguing, defending our positions. The project manager and I have collaborated well, both before and after this incident, so it was not about a clash of personalities. I think the presence of a third person set the scene for a battle of pride, both his and mine. I thought a lot about that afterwards and discussed the matter with the project manager – in private, this time. The other two times when there was a third person present, I took the opportunity of checking that I would not repeat the mistakes of the first incident. [The PIAs] didn't work despite this, however. Face-saving behaviour by the project manager was evident, and no arenas for*



*reflection were created. One of these projects was critical, and I proposed a follow-up audit for that. It didn't work, either. The project manager was a hired consultant whom I didn't know, and the face-saving pattern set during our first meeting continued into the next. Perhaps she learnt something behind that professional face, perhaps not. I think it was the latter, as [I later heard that] the project did not develop to its full potential.*

### **The project managers' view of PIA**

Audited project managers responded that PIAs had 'worked' for them by 'helping' them in their projects. They were all upbeat about the existence of PIAs. However, when they were asked an open question regarding the purpose of PIAs, the answers varied. One respondent said that the purpose of PIAs is to "let you discuss your ideas and get help in writing up the requirements specification before starting the project. It's to give you a green light, that everything is okay." Another person responded, "it's to avoid risks, to avoid forgetting things". One answer was "to get the chance to clarify things with a neutral person, checking that you have put some thought into it, somebody neutral who is not involved". Another said "it's to get another pair of eyes to look at the project specification and see things you have forgotten, for example missing risks, missing dependencies, or the project in its entirety, to question the different components of your project".

The Company has a rule that all IT projects should have a steering group which the project manager reports to. This rule has been in place for several years. Respondents were asked if PIAs offered the projects a different service to the one offered by the steering group. One project manager said that both timing and prestige were essential.

*[PIAs] have a different purpose [compared to] the steering group. You can avoid the matter of prestige, the necessity of having to show the steering group that you have put a lot of thought into it, that you're clever, and in a situation like that [in front of the steering group] you don't want to expose logical errors, mental errors, etc.*

The respondent said that her experience of steering groups is that they usually lack knowledge of IT product development in general, and of the situation at hand. The fact that the steering group consists of several people, where many are unknown to you and few have a good insight into the situation creates the dilemma.

*It is crucial how you create the project's steering group. Problems in the steering of my projects have often stemmed from a lack of commitment in the steering groups. The purpose of steering groups is to make way for the project, to allow you to work without interruption, to create acceptance for the project, to obtain more resources. [...] They are to give guidance regarding a change of path and so on. If unexpected events occur forcing you to rethink or redirect, then they are the ones to make that decision.*

Another respondent said that there are typical situations when project managers don't inform the steering group of what's going on.

*The same old same old, you have a deadline that you don't believe in, or other problems you don't want to reveal to the steering group. Times when you want [them to have only] a limited view of the project. Project managers always expose only some of the perspectives of their projects to others, including their steering groups. [...] This [selection of perspectives] does not in itself imply deceit, as a*

*project manager simply cannot show the steering group the image of the whole project, it's impossible.*

One respondent focused on the need for agreement:

*One difference between a review such as this and a steering group is that you have to reach agreement with your steering group. The steering group is something you have to obey, but in respect of a review such as this, that is not the case. [...] A steering group is not as questioning, they never ask 'why did you choose to put this activity before that one', or 'why did you choose these three objects of delivery'. [The PIA auditor] can be provocative in a review such as this, forcing the project manager to explain his/her decisions, and you don't have to reach agreement about it. I say it is of more use to you, as the project manager, to have to think carefully.*

One respondent said that the purpose of PIAs was to “check the use of ideas” and “get help in writing the requirements specification before starting the project”. When asked later on if PIAs had worked, she answered that they had:

*Sometimes you are so focused on what you are supposed to do. You are so focused on satisfying the customer, and that can lead to forgetting some things. [...] If you don't have a standard, and you have to start from scratch, during every project start-up, you tend to care about what comes to mind, to include this and that and then you might forget some other things. [...] You remember what went wrong earlier, but you forget to identify the things that went well.*

## **5. DISCUSSION**

Apart from the PIA method, the project management structures put in place at the investigated case company to guide its projects are ‘textbook’, and thus legitimate: specialized project managers, matrix organizing, a documented project process designed around a stage-gate core, and a project management support office including quality assurance inspections (Maylor, 2010; Pinto, 2013).

Of these standardized tools and methods, the organizing of stage-gates run by steering groups is of particular interest, as they are group of people who has formal power over a project. They are also a stakeholder group who the project manager actually will face. The project managers in this study disclose that they at times act dishonestly, when they do not reveal relevant facts to their steering groups. Other project managers candidly report that you ‘dress things up’ in front of the steering group, trying to present a more polished picture of your project, at least up to the point of running into trouble when you inform them in order to make them act.

Perhaps there is a particular lack of rapport between steering groups and project managers at the case company? Lack of honesty in stage-gate processes has been reported from other companies (Chao, Lichtendahl, & Grushka-Cockayne, 2012) and it is known that successful project managers learn how to bend the rules to make sure that their projects succeed (Olin & Wickenberg, 2001; Ollila, 2002). Also, this is not limited to project managers. We expect to see self-serving interests to some extent influencing behaviour also outside projects (including members of steering groups).

Proponents of stage-gate systems may object that the tool works all right, but that its positive effect is inhibited by the political behaviour of the project managers. We

acknowledge that the stage-gate system is an important tool (as indicated by its widespread implementation) and argue that an analysis of important tools should include habitual patterns of use and misuse. Thus, if a tool is prone to misuse, it can be considered a quality of the tool.

What makes this case interesting is perhaps not that the project managers admit to lack of rapport before the people officially set to support them in their steering groups. It is the contrast, between low rapport in one organizational context (steering group meetings), and high rapport in another (PIA audits). It seems the Company was successful in creating an efficient, high-rapport arena with the design of the PIA for stimulating learning and knowledge transfer in the early phases of projects.

It is of interest to chisel out the circumstances required to enable project-based organizations to enhance Model II reasoning (Argyris, 1990). The PIA auditor's reporting of failures during audits when three people were present, and the criticism of Action Science's group counselling (Kemmis & McTaggart, 2000) indicate that a one-on-one setting is preferable. One-on-one project audits, other than PIAs, have been occurring at the Company for years. The focus of those audits, however, has been compliance, with project managers aware that those audits would disclose any project which did not, in the end, comply. We can expect employees to be unwilling to share information that puts them in a bad light (Downs, 1967), and, under such threatening audits, it is naïve to believe that deeper, double-loop learning would occur, regardless of the ambitions of the auditor. These findings are in line with the results of Westling's (2002) investigation of different kinds of project meetings in a large multinational organization, where he found them to more be arenas for impression management and the practice of symbolic leadership rather than information-sharing and decision-making. Instead, much of the information-sharing and decision-making takes place backstage. Thus, we cannot expect Model II reasoning to occur during steering group meetings or during disclosing audits. Those arenas are not staged for learning, but for performance.

Unchallenging model I reasoning and single-loop learning is the dominant mode when struggling through the workday. Double-loop learning, changing the reasoning behind your actions, is time and energy consuming, challenging, and at times hurtful. Dialogues during the PIAs sometimes cover sensitive topics such as what people have said, what people have done, and what you are to make of that. Project managers reveal what they think of others and what they think of their own actions. They allow themselves to be challenged, and, at times, this reflection causes a clearly identifiable change of action by the project manager. Model II reasoning allows reflection and double-loop learning to occur.

Management did (obviously) deploy PIA. Their explanation for the decision is the need to support project managers during the early project phase; just why conventional project management methods are unsuited to providing this support is not elaborated upon. The attitude of management can be characterized thus; 'The PIA is a bit strange, and was not my idea, but as long as the project managers say it works, it's fine by me'. This finding supports the proposal that management is reluctant to admit to any difference of interests in the projects and their environment. This could in turn be caused by the tradition of viewing the organization as a rational design. Management says it trusts project managers to be loyal, which is probably a prerequisite for the deployment of a method such as PIA, which unilaterally increase learning through reflection.

Again, the project managers found the PIAs to be supportive with the survey indicating that PIAs increased the project managers' understanding of their projects. The interviewed project managers viewed the PIA as an opportunity to double-check the project design before it was scrutinized by the other project management support systems, e.g. the steering group and the quality audits. Obviously, the project managers see a need to control what is perceived by these conventional, legitimate support systems. Some project managers gave examples of how they needed to manage the impressions of the project.

The PIA auditor reported that reflecting did not provide much 'pay off' as regards the detailed planning of the project, but was much needed as regards the initial proposal received from the customer and the overall design of the project. The PIA auditor also reported some occurrences of projects that got stuck early on when the project managers recognized political opposition from unfriendly interest owners inside the Company. Following reflection, these project managers realised that they could either fight back politically or expose the resistance, two tactics that had not been considered before the audits. More than just a few project managers seem to perceive occurrences of political resistance and other kinds of non-supportive behaviour as kinds of organizational bugs, and that these bugs must be fixed by management before project work can continue. The possibility of finding a temporary workaround was reflected upon when situations like these were discussed.

This study supports the existence of the objective inside versus the subjective outside paradox in the management of projects. It also indicates that reflection through Model II reasoning can be formally organized, if this organization recognizes the paradox and the need for the trust required for Model II. The existence of the paradox has implications for designers of any kind of control system for project management; the project managers, who are subject to the control system, will try to manage how the control system perceives the project.

Perhaps the setting of The Company is peculiar; perhaps it all would be different in an organization where steering groups are manned to a greater extent by people skilled in project management. We believe the Company is not that peculiar. A project manager cannot always expect the context of his/her project to be supportive and predictable. Some irrationality will always exist, e.g. organizational politics in competition for scant resources, uncertainty regarding the interpretation of top management directives, or rivalry between line and project managers. PIAs are an example of a project management method, which enables reflection and learning by project managers as regards such matters. Conventional project management methods, such as guidance by steering groups and knowledge stored in rules and guidelines, have failed to provide such support.

Our findings show that the practice of learning and knowledge sharing in project management is better served by an understanding of the interests of the different actors of the organization, and the recognition that the interests of individuals deviates at times from the overall goals of the organization. It proposes that learning arenas may be served by reducing the influence of the traditional hierarchical system of power. Project managers are aware of the informal power systems. So should also the designers of management methods.

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