Making the Non-discussable Discussable

An Exploration of a Novel PM Method for the Design Phase

by

Jan Wickenberg

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Jan Wickenberg
Fenix at Chalmers University of Technology
Vera Sandbergs Allé 8
SE-412 96 Göteborg
jan.wickenberg@fenix.chalmers.se

This Working Paper can be downloaded also from our web site http://www.fenix.chalmers.se
Hard copies can be ordered from Anita Söderberg-Carlsson E-mail: Anita.Soderberg-Carlsson@hhs.se

1 Executive Summary

The school of project management has produced many aids that support the implementation phase of projects, but support for the design phase is still lacking. This article is an exploratory study of an application of a new method of supporting projects during the indistinct design phase. The method assumes that a 'can-do' attitude of project managers make them tend to manipulate any formal review system during times of great uncertainty, and deals with this through deploying confidential reviews aiming at a model of reasoning proposed by Argyris and Schön (1978). Findings of this study confirms that project managers are aware of the power system in which their projects operate and that they are unwilling to share important but embarrassing information, such as their own lack of knowledge, to control systems and power holders. The implications of this management of impressions for knowledge sharing are discussed.

2 Introduction

Many project management models rely on the assumption that project work unfolds in a logical sequence. This sequence prescribes that solutions are not to be identified until the problem has been clearly defined and the options have been compared and evaluated. Implementation should not begin until agreement has been reached as regards the solution. The key actors in the implementation process need clearly defined roles and responsibilities. Implementation is to be closely monitored and deviations from plan are to be detected and corrected. The implementation process is bounded in terms of resources and time, with a clear project completion date. Unfortunately, organizations seem rarely to operate in such a tidy and predictable manner (Buchanan & Huczynski, 1997).

The dominant view of project management focuses on two main problems, the planning of the project (the design phase) and its execution (the implementation phase) being in alignment with the plans (Engwall, 1995 pp184). However, calling for better planning and better estimation is not always the best solution (Sauer, Liu, & Johnston, 2001). The project work may be regulated by formal rules and audited via inspections and progress reports, but such project monitoring is subject to the influence of the same power system as the project work itself (Olin & Wickenberg, 2001). Authors in the field of organizational politics recognize that information, which challenges the decisions made, also threatens the power base of the decision maker and will not be welcomed (Ortmark, 2000). The history is full of examples of project failures, caused by unwise management decisions regarding overall product (or process) design during the early design phase of the project, and where often vital knowledge and experience were available but not called for (Karlander, 2001). Well-known examples of this kind of political mismanagement of projects include the Challenger (Gleick, 1992) and Vasa (Kessler, Bierly, & Gopalakrishnan, 2001)

disasters. In the case of NASA, managers prioritised the political management of the shuttle program, oppressing discussions regarding the potential failure of subsystems. In his report on the Challenger disaster, Nobel Prize laureate Feynman recognized that engineering and impression management are competing activities and concluded by warning that; "for a successful technology, reality must take precedence over public relations, for nature cannot be fooled" (Gleick, 1992 p428).

This is an obvious but neglected paradox of project management; as a project manager, you need to manage the inside, the development of the product (the project result), while at the same time needing to respond to external challenges and to compete for resources outside of the project. The former activity calls for a rational view (of 'reality' as Feynman puts it), while the latter may call for some management of the impression of the project being sent out to the project environment. Some project management writers recognize that some of the manipulative (e.g. Sotiriou & Wittmer, 2001) and political (e.g. Pinto, 2000) tactics of the project manager can be used constructively. An example of such 'moderate' political behaviour follows. The author of this paper was once told by an experienced project manager that, in order to make management recognize her talent, every once in a while she deliberately mismanaged some risks so that she needed to report them to the project's steering group ("let them hear it crack a little" as she put it) before taking care of the risks. She explained her behaviour by saying that "management doesn't appraise you by what you do, but by what they know that you do". Project managers recognize that they must attend to the different problems of their projects, while at the same time having to manage the façade of performance and achievements shown to management. In projects are the rational and the political irrevocably intertwined (Buchanan & Boddy, 1992).

This paradox, of the objective inside versus the subjective outside management of projects, creates some dilemmas. (i) One is the need for the project manager to use two different mental agendas regarding work, one objective and one subjective. Viewing the world via multiple perspectives is a rare practice (Morgan, 1997) and one or the other might be underdeveloped by the project manager. (ii) A second dilemma is that the subjective agenda, when used by the project manager to protect the project from unwanted outside influence, might also suppress indications of major problems on the inside of the project. This will allow the problems to escalate in such a way that they might get out of hand before the project manager reports them. (iii) A third is that it is difficult for management to create supporting instruments and methods which help project managers to manage secret agendas, since public acceptance of the existence of different agendas would legitimise resistance to the influence of the project environment and its management.

This study presents an emerging project management method, *Project Initiation Audit,* or *PIA* for short. It was designed to support the project manager in managing the first dilemma, the inside and outside agendas. It was deployed at the beginning of the project, where uncertainty regarding the project is high, but where, according to

Karlander's cases, many major design decisions are made in haste. Situations of great uncertainty call for reflection and consideration by the project manager, which is the aim of the PIAs. It is designed to side-step the second dilemma through feeding no information back to the project environment; it thus provides no grounds for increased influence and can be viewed as 'friendly' support by the project manager. Also, it is designed to avoid the third dilemma inasmuch as management, through deployment of the method, only authorizes a kind of mandatory project audit; no public recognition of the existence of different agendas needs to exist in such a deployment.

This paper is divided as follows. The major principles of project management theory are briefly described together with some of its critics. Theories of action are presented to explain why the common, rational approach of analysing human behavior is unfit in certain situations, together with a few examples of existing methods for 'deeper' learning. Then, the PIA method is described in the terms by which it was presented to the management of the studied organization, and then excerpts are given from recorded narratives by those involved in the PIA audits (PMs and the auditor). The Results section summarizes how the PIA method deals with the three dilemmas described above, and finally the implications of the findings are discussed.

3 Theories of Project Management

Proper project execution is usually 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 respect the project's demarcations, not to doubt the relevance of the project's objectives, just the path set to achieve them. It is the project's customers and their representatives who care about the relevance of the objectives (Kreiner, 1995).

Unique work is difficult to standardize. Research performed by Ekvall (2000) indicates that the application of standard management methods to projects might restrict the projects' abilities to innovate. The project management 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 (Hatchuel, Masson, & Weil, 2001). Innovation usually occurs during the design phase, which practitioners of project management have a tendency to rush past (Turner & Cochrane, 1993; van den Honert, 1992). Apart from offering an opportunity for innovation, a well-performed project start-up is important since it improves understanding of the project's overall purpose, scope and objectives (Halman & Burger, 2002). 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. Alas, the project management school has so far failed to provide appropriate tools for the design phase of projects. Critics of the 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, 1999). This calls for project methods which recognize the project manager as an actor in a network of different interest holders.

4 Theories for action and learning

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 is, more often than not, what we confront in the world (Goleman, 1986). One important area of distortion is our own actions. Argyris and Schön (1978) 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, uncertain issues which are embarrassing or threatening increase it. 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 aware of other people's inconsistencies while they are producing them, and we are aware that they are unaware. We are not particularly effective in helping others to gain awareness, and we are unaware of our own ineffectiveness while trying to be of help (Argyris, Putnam, & Smith, 1985).

According to Argyris (1990), members of organizations are prevented from learning because of defensive reasoning and routines, especially occurring during threatening situations. 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. In order 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 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).

5 Method

This article describes a project management method, tried out by the author of this article. The author has also been acting as the 'auditor' in all PIAs performed so far. Thus, it is more of a self-ethnographic study performed by an insider than action science performed by an outsider (Bartunek & Louis, 1996). As the author is very close to the studied phenomenon, there is a high risk of bias and distortion. This subjectivity needs to be managed in a disciplined way (Rendahl, 1992). A self-narrative was recorded in order to better understand the phenomenon. As Schön puts it, "awareness of one's intuitive thinking usually grows out of practice in articulating it to others" (Schön, 1991 p243). Excerpts from this narrative will be presented in italics, as are excerpts from the interviews. Two other researchers were invited to validate the analysis of the study.

The purpose of the empirical study was to investigate how the PIA method deals with the three dilemmas presented above; (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 simple survey was conducted at a point used by management to benchmark the PIA method; the result will be reported on.

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 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.

6 The PIA method

The PIA method focuses 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 is to create a dialogue climate where errors or obstacles can be discussed without loss of face or performance of organizational politics. The method was developed in an IT function at a pharmaceutical R&D company (The Company). The Company has grown from 1,000 to 2,000 employees over the seven years during which the method has been 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.

PIAs share the following characteristics:

- Institutionalized by management in its existence, not its content
- Performed during the early phase of project execution
- Takes less than two hours to perform
- Staged for two participants; the project manager and the auditor
- Unilaterally confidential (the auditor cannot disclose information)
- The auditor is powerless and non-influential outside the PIAs
- Aimed at creating reflection through Model II reasoning

IT line management has ruled that a PIA is to be performed at the beginning of each IT project, and have accepted that there is non-disclosure. Management knows the

PIA characteristics described above, but receives no report regarding what each audit covers; the only information agreed upon for disclosure is when individual project managers resist being audited. On an aggregated level, they may be informed of patterns of project management dilemmas, this information also being made available to the IT quality assurance functions of the company. The auditor is not to provide any information regarding the performance of any individual project managers, and is in no position to exert any influence on projects outside of the audits.

7 An early evaluation

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 person performing the study. Fourteen project managers were absent or failed to answer, with the response rate for the 16 who answered being 100%.

Table 1 – Results of the PIA questionnaire (# of respondents)

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

Management interpreted this result as positive and institutionalised PIAs for performance 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 PIAs provide an opportunity to reflect upon the feasibility of the project idea. A bad idea is easier to reject or improve if the auditor has said 'this project would be hard to conduct for anybody'.

Managers explain their authorization 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.

8 The auditor's view of PIAs

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 the '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 as regards 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. The auditor 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, where the concerns of the project manager lie.

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 product to provide. The project customer had provided a heap 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 of others.* 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.

A relevant question to ask is whether or not the confidentiality really makes a difference. *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.*

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 believe it was the latter, as the project did not develop to its full potential.

9 The project leaders' view of the PIAs

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 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 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'. You 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.*

10 Conclusions

The project managers in this study report that one important element of the project support structure, the steering groups, is not suited to all kinds of problems during project management. In fact, some of the project managers disclose that they are, at times, far from revealing all facts dishonest 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. Honesty does not rule the relationship between the project manager and the steering committee. Model I reasoning does.

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.

The purpose of this study was to make an initial exploration of the PIA method and to investigate how it deals with the three presented dilemmas; (i) is there a need for reflection regarding the items of the two agendas of the project manager; (ii) do the project managers accept the support of the PIA auditor and is Model II reasoning achieved, and (iii) will management deploy PIAs?

To start with (iii), management has obviously deployed PIAs. Its explanation for this 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 initial 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 (Morgan, 1997). 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.

Turning to (ii), all the interviewed project managers, as well as all the project managers who responded to the survey, found PIAs to be supportive. The PIA auditor categorized Model II reasoning as when project-related topics could be discussed with no resistance, and found this to occur during most audits. However, the PIA auditor reports that Model II reasoning was never achieved in situations where there were three people present, and that a few project managers were difficult to invite into Model II. Those who eventually turned to Model II and received another audit would, however, quickly get into Model II the second time, indicating that the trust needed for Model II is present.

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 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 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. Bearing in mind the quotation by Buchanan and Huczynskij (1997) in the introduction to this article, 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.

Reflective project leadership (Ollila, 2000) is a method which creates learning through reflection in a non-disclosing setting containing two people. When comparing the PIA method to reflective project leadership, an important distinction becomes apparent. In Reflective project leadership, the auditor is not professionally competent as regards the task of the audited leader, while the PIA auditor has professional experience. This makes PIAs an arena for also transferring knowledge betweens auditees by means of knowledge broking (Hellström, Malmquist, & Mikaelsson, 2001). This might prove to be an important alternative mechanism in situations where deeper learning and reflection are either undesirable or impossible to achieve.

It is difficult to precisely chisel out the circumstances required to enable a project management support organization like the PIAs to enhance Model II reasoning. 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 p272), and, under such threatening audits, it is naïve to believe that deeper, double-loop

learning would occur, regardless of the ambitions of the auditor. In his doctoral thesis, Westling (2002) shows that many kinds of project meetings are arenas which host activities such as 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. 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.

Argyris' et al (1985) proposed method of learning through Model II reasoning, Action Science, consists of an arena containing several participants. While this study does not challenge the notion of creating learning in large groups per se, it shows that such learning can be achieved quickly when the group is reduced to a couple of people, a facilitator and a participant, and that the necessary confidence takes, at least, much more time to develop when the group is extended. Argyris' idea that the change into Model II reasoning is to be initiated by management may not always be adequate; some group situations may instead make you perform in order to avoid embarrassment, and as a result your performance is Model I reasoning causing erroneous decisions in the short run and defensive attitudes in the long run.

Our findings show that the practice of 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 project management methods.

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