

Managing Complexity: perspectives on global (project) management competencies.

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It is difficult for many managers to work with self-organising processes, because they are used to thinking about themselves as people who are in control, realise plans and create the future as individual heroes or heroines, rather than simply as participants in an ongoing process. (Patricia Shaw, nuclear physicist and organisational consultant, 2002).

Introduction

For the past thirteen years we have trained project managers and general managers and worked as consultants in the fields of organisational development, transformational management and competence development. During this time we have benefited from an ongoing professional dialogue about the training of project managers, and we see a need for a new way of equipping managers to handle complex projects and processes. We base this statement on the following observations:

- Good project managers often lose the battle to manage the highly complicated projects undertaken by companies today, even when they manage by the book.
- Resourceful employees (including many young employees) burn out and suffer serious psychological scars as a result of managing projects. Consequently many of them change jobs and lose the courage they need for project management, and the company loses valuable resources (Amtoft, 2000).
- Project managers' psychological competencies and personal maturity and robustness often do not match up to the large and complex challenges the projects confront them with.
- Despite the fact that surprises are daily fare, many project managers still dislike being confronted with 'unplanned' knowledge. This opportunity to gain more knowledge is often seen as an indicator of poor performance, which embarrasses managers, and which they therefore try to forget as soon as possible.

- Many project managers reflect remarkably little on their daily actions and sometimes do things that are so obviously to their own detriment that one has to wonder why, given how competent they otherwise are.

Our thesis is that project managers are still trained to create order through predictability, but not to manage transitions from one state to another, where a new and more advantageous basis for understanding the future work arises. Complex projects call for management thinking that matches the projects' unpredictability.

Complexity and chaos theory represent useful contributions to a new paradigm for project management. We base this claim partly on our experiences from training programmes where we present these ideas. Many react with deep relief, almost in the same way that an ill person, after many visits to his doctor, finally receives the correct diagnosis from a new doctor based on the latest research. It is the sense of having your feelings confirmed after having had to live with an untenable situation for far too long.

Complexity and chaos theory have been popular for several years (see e.g. Stacey, 1996), but have not gained a solid foothold in terms of making a practical difference to project managers. One explanation for this is that the non-linear dynamic described and explained by these theories is often presented in contexts that are characterised by linear assumptions. Thus their practical implications are misguidedly converted into linear tools or 'more of the same'. In order for these theories to become truly useful to people who manage complex projects and processes, complexity and psychology must be woven together even more closely than they have been until now (Shaw, 2002). This article is intended as a contribution towards this aim.

Seven perspectives on managing complexity

In the following, we briefly describe our thoughts about the ways in which psychology can give complexity theory the practical dimension and impact it is currently lacking in the context of project management training. We suggest seven perspectives that can help form the foundation for educating managers of complex projects and processes. Against this background, we then offer our views on how project managers should be educated. The text is non-linear. We start at different places and end in places that resemble each other. The reader should expect a certain feeling of repetition, which we can only hope will be beneficial. What we write here is relevant to the management of complex projects, but perhaps also to education and competence development in general (Vestergaard, 2003).

1. Projects are constructed from many stories

Social constructionism offers a way of understanding projects that is based on the view that our minds do not reflect an objective 'truth'. Rather, we act according to our interpretation of the project's meaning. The meaning of a project is embedded in the way we coordinate and talk to each other in relation to the project. This can take the form, for instance, of certain metaphors we use to describe the project, the stories we tell about it and the perspectives we continuously construct in order to solve the

daily problems (Gergen, 1999). The meaning we give to a project determines what we think is the obvious thing to do or say and what we think is meaningless, unwise or ineffective. If we can change the meaning we assign to the project, we will also change the actions we find natural. The stories are bearers of meaning and as such important to the management of complexity (Weick, 1995).

Projects are created by the stories the stakeholders and project participants tell about them, and by the way those stories are understood (Amtoft, 1999). Therefore it is important for project managers to ensure that the varying opinions about the project are counterbalanced on a continuous basis. An action plan should be designed to ensure coordination on the level of meaning. When all else fails, when confusion and uncertainty reign, dialogue and coordination of stories are the way forward for the project manager (Raab, 1997; Shotter, 1991).

Management in complex organisations:

The exciting thing will be to get managers interested in how people come together to talk about what actually happens in organisations. We need innovative cultures, and innovative cultures cannot be designed in conventional ways. Innovation means a shift in patterns of thought and relationships, which fluctuate and intensify through networks. (Shaw, 2002).

Often it turns out that the stakeholders' different opinions about the project are not in harmony with the project itself, even though the project lives up to the original, official targets. A project can meet all technical, time- and budget-related requirements to the letter, but if the sense of the projects purpose is lost, it will still be a pointless fiasco (Kreiner and Christensen, 1996).

This situation can largely be prevented if managers take a greater interest in the stories that circulate within and around the project. These stories contain valuable information about the various parties' expectations for the project, not least their unofficial expectations (Amtoft, 1994). A project is far more realistically understood as an ongoing construction of meaningfulness than as the production of a final result that lives up to a set of absolute quality criteria. It requires quite different process-management skills of project managers than the target-oriented drive for results which is usually seen as the most important quality.

What is the project manager up against? Managing the stories well requires not just extra work, but also a good deal of courage and the ability to foster trust. A lack of knowledge about the stories is rarely due to ignorance on the part of the project manager or the group, but to other circumstances of a more psychological and organisational nature, as well as the standard discourse of project management.

There is a culture of project management in many organisations that sees it as a sign of weakness and poor management to ask questions or openly acknowledge that you do not have all the right answers (Amtoft, 1994). Reviews with no other agenda than exchanging stories and knowledge tend not to be encouraged in these times of attenuated relationships. Nevertheless such a meeting is often the best initiative a project manager can take to open up for the knowledge needed to navigate the project's

waters. Curiosity and the gathering of information of a more psychological and attitudinal nature is seen in many organisations as a sign of unnecessary interference and control, as well as distrust about competencies and motives.

Many stories have consciously or unconsciously become forbidden stories (taboos) as a result of restructurings, sackings, mergers, bankruptcies, covert agreements, and so on. However, these stories are some of the most important ones to tell, either because they can generate a lot of energy or because they determine people's actions (Amtoft, 2000).

The project's meaning will always be interpreted in different ways. The realist will try to close off this difference by referring to the project's true reality and trying to force through a consensus on that basis. Social constructionism offers a useful alternative to consensus, namely opening up to different versions of reality and using the knowledge associated with them to coordinate and navigate with. In practice this means creating new understandings, explanations and stories, where contradictions do not equal problems in going ahead with the project (Boscolo et. al., 1992).

H.C. Andersen's fairy tale 'The Emperor's New Clothes', in which everyone knew what was happening, no one said it aloud, and the kingdom's riches were wasted before the taboo was broken, describes all too well many projects that reject 'alternative' opinions. 'Objective truth' is not the only way to trustworthiness (Campbell, 2000).

What's the use of stories that aren't even true? Haroun couldn't get the terrible question of his head. However, there were people who thought Rashid's stories were useful... Nobody ever believed anything a politico said, even though they pretended as hard as they could that they were telling the truth. (In fact, this was how everyone knew they were lying.) But everyone had complete faith in Rashid, because he always admitted that everything he told them was completely untrue and made up out of his own head (Rushdie, 1992).

Our experience of working with organisations and supervising project managers has shown us that taking stories seriously is a good approach to understanding and influencing the development of projects. Project managers should therefore be trained to allow time and space in the project for more than one story to be told. The stories often contain the key to the organisation's locked doors and the energy of the project participants and other stakeholders. The project manager should use his 'literary' competencies, such as 'reading' the organisation and telling meaningful and liberating stories that give others the necessary courage and trust to get the project moving (Amtoft og Strøier, 1996).

2. The world is in principle unpredictable

In recent years, complexity theory has increasingly established itself as a metaphor for understanding contemporary organisational phenomena (Battaram, 1998; Stacey, 1996; Goldstein, 1994; Wheatley, 1996). The metaphor is also interesting in relation to managing projects, because unlike most other metaphors, it does not point out a way to achieve control over organisations and projects. Instead, this metaphor helps us see that projects, like living systems, alternate between periods of balance and predictability, and highly imbalanced periods where predictability and control are difficult or

impossible to achieve. Each state accordingly demands different kinds of efforts from a project manager.

The reason why complexity theory has had the contemporary impact it has is the realisation that we are living through a time of rupture – some say of revolution (Ridderstråle and Nordström, 2000) – initiated by fast, dramatic changes in technology, institutions and values, and accelerated by IT innovations, globalisation and deregulation in many areas. As a result, projects are now more than ever subject to complexity, change and unpredictability. What can project managers learn by adopting the perspective of complexity theory?

First and foremost, a project manager can use this perspective to question the success criteria he sets up for himself, and that others set up for him. What makes a good project manager, and what is a project manager's role? What does the project manager's professional imagination contain; what are the explicit and implicit perspectives, theories and inner images he measures himself against?

Having given many courses in project management, we have seen how deep-rooted is the myth about the project manager as the one with the overview, who plans and controls the project and processes from beginning to end. Such statements as, "My dream is to just be able to say that the project ran according to plan" are normal among project managers. According to this myth, accurate predictions and good planning are the hallmarks of successful projects. A project manager who is measured and measures himself against this myth will see himself and be seen by others as less successful if, during the course of the project, it proves necessary to alter decisions and adjust the initial plans or targets. The planner myth would have us see adjustments as signs that the most important virtues – prediction and planning – are absent. As a consequence, project managers who base their work on this mythology tend to do all they can to avoid circumstances that call for adjustment and adaptation. This results in a simultaneous construction of the project, its participants and the project manager's identity (Weick, 1995).

"It is probable that a thing may happen contrary to probability," wrote Aristotle in his *Poetics* (cited in Gustafsson, 1997). A deterministic understanding of the project manager's role makes it less probable that we will see the signs that call for changes, and more probable that we will see the signs that confirm our original ideas. This is called tunnel vision: what we do not believe is possible or cannot imagine, we will not notice (Weick, 1995). There is therefore a risk that the project will be developed so far in a given direction that it is no longer needed.

The metaphor of complexity offers an alternative to seeing adaptation as a sign of poor planning. With the shift to complexity as a metaphor, the project manager's mindset will shift accordingly. In the light of this metaphor, changes will be expected and adapting to them will be regarded as a competent administrative initiative. Such an initiative is often preceded by events, information and feedback that create ambiguity, confusion, and, some would say, chaos.

Here the complexity metaphor can make a difference, because it can help us to see this state as just as natural and positive as states of order, control and predictability. The state of disorder is not seen as a mistake that needs to be rectified as soon as possible, but as a tool for gaining new knowledge.

Complexity theory describes how living systems that are subjected to great changes move along the edge of chaos in order to ‘unlearn’ the old perceptions and ways of doing things.

This ‘unlearning’ process can only take place during periods of confusion, uncertainty and disorder, but it is a precondition for the emergence of new ideas, connections and relationships. Adopting the complexity metaphor can enable the project group to demonstrate its ability to organise and manage itself. It can also give the project manager the option to let confusion reign for a brief period, in the confidence that this state is productive and that the project manager is not necessarily incompetent if he chooses not to return to the old routines as quickly as possible. According to this perspective, a good project manager can choose to loosen the reins for a while to allow for the possibility of being surprised by new connections and insights no one had thought they needed before. Project management thus becomes a ‘facilitation of disorder’:

No longer the caretakers of order, we become the facilitators of disorder. We stir things up and roil the pot, looking always for those disturbances that challenge and disrupt until, finally, things become so jumbled that we reorganize work at a new level of efficacy (Wheatley, 1994).

For a project manager, facilitating disorder means welcoming surprising signals and contradictory information that go against the general understanding of the project, both within the project group itself and the wider circle of stakeholders. It means balancing decision-making with sense-making. It means demonstrating your belief that an authentic dialogue about the different parties’ perspectives on the project’s problems and possibilities will make it possible for greater knowledge and a better approach to break through. By giving up control the project manager can win it back, but on another, more ‘up-to-date’ and efficient level. This is the complexity-theoretical perspective on project management.

3. Everything that happens in the project must be seen in context

There are always many contexts in play at the same time in a project. For instance, project participants are not usually employed on a full-time basis to work on a single project, but have other obligations. In inter-organisational project groups, the various participants will have their jobs’ success criteria to consider as well as the project’s success criteria, and possibly more. Project participants and other stakeholders will be working in separate contexts, so to speak.

Systemic thinking offers a framework for observing and understanding an organisation’s complex processes (Campbell, 2000). A central idea of systemic thought is that people and sub-systems (e.g. groups) operate based on their interpretation of their contexts, in other words of the meaning of what is happening around them (Bateson, 2000). Each part of a system will act in the way it thinks will preserve its own identity and its continued position within the system. Everyone works according to what they understand to be the premises for their participation (Holmgren, 1991).

One of the most common problems expressed by project managers is that of “motivating the various project participants”. In light of the above, it is not surprising that a pep-talk or a dressing down is a waste of time if the recipient’s perception of the context remains unchanged. If the project manager wishes to encourage a participant to be more engaged in the project, the manager needs to find a way to

make the project meaningful to the participant without encroaching on the participant's other obligations. A change on one level cannot take place if that change is hindered on another level. Only by understanding and speaking to the constructive intentions of every player in and around the project can the project manager influence them in a positive direction. The idea of context can serve as an important tool for project managers in their efforts to ensure that everyone finds the project meaningful.

Another useful insight of systemic thinking for project managers is that the parts of a system are interconnected in the sense that if there are changes in one part of the system, there must be a change in the whole system's way of functioning, in order to maintain the link between the sub-system and the larger system. When a project is regarded as a system, it is impossible to completely separate the individual's behavioural patterns from the larger system's mode of function. When there is a wish for change, the project manager with a knowledge of systemic thought will reflect on his own role in the current operation of the system.

Each participant's behaviour within a system is perceived by the others as a form of feedback that can be used to interpret the current situation. No form of behaviour is completely innocent; all actions contribute to future definitions of what is possible or impossible to do. When a person has competing obligations, that person's priorities will depend on his perception of himself and his role in the larger context. Projects are not only about their final results, but also about the roles we play during the course of the project. People do not always act according to their rational interests (e.g. financial); sometimes it may seem more important to act in ways that give us a stronger sense of self-approval on the system's terms (Rijsman, unpub.).

To the extent that the project is an intersection of different sub-systems (organisations, departments, etc.), the ability to build connections between different interests is a key competence for the project manager. The difference between success and failure is determined by whether the project's overall purpose is the primary context for those involved, as opposed to their immediate self-interest. Thus the project manager's task only becomes possible by speaking to the constructive intentions of every single person involved in the project.

4. Authenticity is a life skill in managing complexity

The skill of managing relationships emerges from authentic encounters between people. Only if we are rooted in an authentic existence with continuous, responsible and conscious choices is it possible for us to recognise the effects of our actions, reflect on them, and use them for our further development (Kierkegaard, 1844). Project managers must therefore dare to express their doubts, speak the truth when necessary, not ignore facts which fly in the face of the desired outcome, and give up the idea of being supermen; rather, they need to develop as rounded people in the role of project manager. Tools based on linear paradigms undermine people's potential to develop these competencies, since such tools make it seem possible to control relationships without coming together in an open dialogue and without a basis in reality (Furman and Ahola, 1988). The Swedish psychiatrist Finn Skårderud (2000) has described the modern self as characterised by turmoil and vulnerability. It is caught in a dilemma between the need for individual exposure and development on the one hand, and the need for love and affiliation on the other.

Giddens (1994) describes the modern person as reflective and relational, but globalisation has increased the number of relationships exponentially, which has resulted in less and less personal contact between people. Frølund (1987) argues that a lack of reflection in early childhood causes a fundamental feeling of shame and the absence of the ability to authentically anchor oneself in the world, a phenomenon that can be said to apply later in life as well.

Among many project managers and other loners in organisations, the combination of vulnerability, exposure and lack of reflection in the everyday world leads to a diffuse feeling of inadequacy. This results in fatalistic, inauthentic and self-destructive behaviour, for example, refusing to see important warning signs, concealing knowledge, playing the role of the victim, or having dual agendas which make it impossible to get the “smelling fish” on the table (Amtoft, 2000).

Drawing inspiration from existentialism, an authentic person can be characterised as follows:

- Has a meaning in life without constantly needing recognition from others
- Has come to terms with his own mortality and solitude, and on this basis actively faces the realities of life
- Takes responsibility for his own life and allows room for the crises, problems and irregularities that life throws up from time to time, such as sick children, death, sacking, or the cancellation of projects.

(Jacobsen, 1998)

The great existentialist author Jean-Paul Satre has the following to say about responsibility, pushing the point to its extreme:

The awareness of being the undeniable originator of an event or object. It is futile to complain, since there is nothing from without that determines what a person feels, experiences or is. If someone finds himself or herself in a particular situation, it is because that person has wished it. The person will always emerge from it or change it in one way or another. That situation does not exist that one cannot change”
(cited in Jacobsen, 1998).

Often we hear from project managers that owing to their financial situations, careers or family lives, they do not feel they have had the opportunity to make the necessary choices and decisions about the major moral dilemmas and insufferable conditions which project management has thrown their way (Løgstrup, 1991). This denial or surrender of responsibility (Yalom, 1980) for some project managers leads to distinct feelings of violation, abuse, and loss of control over their own lives. They feel trapped and unable to act. We need not point out the cost of this here, but merely raise the question of whether it is now time that life skills and “the life lore” (Freire, 1973) were put back on the agenda.

One of the consequences of globalisation is an individualistic culture in which the individual is required to consider his personal survival before ethical considerations and the common good. No longer can individuals seek protection and safety from managers or structures. Therefore it is important that the project manager learns to regard himself and others as “liberated, responsible individuals” (Freire, 1973).

“To live responsibly is to freely and openly meet the world, to acknowledge who you are and what you are here for, to breathe, to cast your eye over things, to be here. Being responsible means being recumbent and accepting, peaceful and calm, and to strike a balance between one’s regard for one’s self, one’s regard for others, and one’s view of nature and the world [and the project].” (Our addition) (Jacobsen, 1998).

Emmy van Deurzen-Smith (1995) defines the good life as maintaining a balance between physical, psychic and spiritual needs. Too little (the anorexic approach) and too much (the greedy approach) are equally unhelpful.

Many project managers who have reached their limits and become stressed and/or burnt-out have been committed people throughout, but often we hear that their personal survival has required them to drop all commitments not related to their careers. They have not allowed themselves to have fun. They have put their passions, their friends or their partners on stand-by, and in so doing have exhausted themselves through an almost Calvinist self-denial.

The art of living life as a triumphal party

“If we lose sight of the fun side of life, we will be shipwrecked by the turbulent currents and waves of the times” (Gustafsson, 1997).

We – AV and MA – have recently organised a major training project for project managers, which had one criterion for success: it had to be fun. As it turned out, we often had to remind each other of this criterion in order to encourage each other and keep each other motivated. It was thought-provoking how often performance anxiety reared its head, and how much trouble we found we still had with it.

The trendy expression “get a life” makes good sense here in its command to focus on what really matters and, in so doing, keep performance anxiety at bay (May, 1983). Among other things, project managers can create balance and perspective by focussing seriously on:

- Making the necessary conscious decisions in their lives
- The necessity of a balanced, humanistic view of their fellow men
- What creates meaning and joy in life
- The moral obligations in life (Løgstrup, 1991)
- Children, family and other relationships

Perhaps we can be inspired by the existentialist Irvin Yalom (1980), who has worked with terminal cancer patients for many years, and ask the following questions:

“If you were diagnosed with cancer tomorrow, what would you change about your life?”
“What is preventing you from making these changes today, without the diagnosis?”

Generally speaking, people who can and dare to tackle these questions have fewer insurmountable problems in their lives (Amtoft, 1995).

5. Projects include organisational development

In complex and unpredictable projects, relationships and modes of organisation continuously undergo change. In order to be able to manage these areas, project managers must use and develop as “tools” self-control, self-insight and empathy with other people. These psychological competencies constitute what Goleman (1997) and many others call ‘emotional intelligence’. According to such theorists, emotional intelligence is a crucial quality that is far more important for success in modern organisations than either IQ or technical expertise. Goleman and many others have quantified the concept, but we prefer to use EQ as a metaphor, to make it possible to talk about different psychological competencies in the context of managing relationships in complex environments.

Emotional intelligence is associated with the following psychological skills:

- Self-knowledge: understanding and being aware of oneself
- Self-management: controlling and taking care of oneself
- Empathy: understanding and being aware of others
- Management of relationships: entering into responsible and sustainable relationships.

The value of the EQ metaphor is that it can help us distinguish between different kinds of relationship skills. The problem with it is that it does not transcend individualism. It still defines human beings as isolated in relation to one another; individuals are seen as the primary building blocks and a relationship as something that is built on top of them. The trouble with individualism is that it typically makes us respond to heterogeneity with scepticism and fear – fear that any comparison will turn out unfavourably for us. Individualism makes us compete with one other, avoid risk, and try to appear as though we are in control, even when we are not (Anderson et al., 2001). Some project managers therefore use all their mental energy on just standing firm, and thereby close off their interest and curiosity in their surroundings (Amtoft, 2000). The following quote shows that this is not just an interesting language game, but deadly serious:

“Stress and sometimes other serious somatic afflictions are often the consequences of an imbalance between a person’s psychological burdens and inner robustness, and many project managers’ limits are discovered when it already is too late. Some corporate managers in very turbulent enterprises can doubtless testify to how a project can suddenly be thrown off the track – including in financial terms – because a project manager fails to cry for help in time. The project manager’s grasp on reality may finally be lost if the project manager is whirled around enough in the project and organisation. An absence of dialogue means the project manager remains entrenched in his own reality, and turns a blind eye to the things happening around him. Then the project is really in trouble.”
(Amtoft, 2000).

Adopting the individualistic competition ideology in its extreme form can be virtually fatal for project managers who want to last a lifetime:

“During training you must never focus on the pain. Instead, focus on the fact that it is at this very moment that you are improving and stretching your limits. It is just at this point that all the cowards want to give up – but you stick it out. “You win.”
(Arne Nielsson, former world canoeing champion and management consultant).

However, we in the West are so used to thinking individualistically that we tend only to see responsibility in individual terms. This type of responsibility often leads to “blame games” in projects when things do not go as planned. A great deal of time and resources is wasted on squabbles about who is responsible when things go wrong. This is a well-known phenomenon within the construction industry, where the sheriff’s office is often required to intervene in order to decide whose fault it was that the job ended up not living up to the promised cost, deadline or quality.

Another metaphor which is even more applicable to the understanding of the management of relationships is relational sustainability, which takes the opposing view – i.e. that as individuals we become who we are as a result of the relationships we enter into (Gergen & McNamee, 1998). For example, a leader is only a leader if someone follows him.

Relational sustainability means that the people involved perceive and take responsibility for the long-term existence and feasibility of the relationship, and therefore refrain from behaviour that might erode or destroy it, even when there is an individual, short-term gain to be made. This also means that it is the relationship that is responsible for achieving the goal, simply because there is such a degree of sympathy or solidarity that your problem becomes my problem, providing it makes sense in the context of the project. Sustainability means the relationship can bear the responsibility for a particular deadline, for example, even under pressure and changeable conditions.

Partnership is a term that is often used about this kind of responsibility. Among other things, people have tried to turn it into a “technique” in the construction industry under the name “partnering” and “lean construction”. In this connection, a number of methods have been developed to build up the trust, openness and mutual understanding required for parties that normally “take care of number one” and are accustomed to meeting in “border disputes” to dare to venture into uncertain processes with major financial interests at stake without safety belts and harnesses in the form of detailed long-term plans (see for example Dansk Projektledelse, 2003, no.1). In this way, partnerships or relational sustainability constitute a resource for the management of project complexities.

The art of being able to create relationships characterised by mutual respect, openness and understanding, despite variable conditions, is not a matter of team-building courses (Dræby and Vestergaard, 1996) or start-up seminars, but about daily work on ethics and a feeling of joint responsibility in the cooperation within the project group.

Faced with volatile relationships, project managers need to be able to negotiate with the various parties and influence the way in which they work. The project leader must be able to understand the dialects, languages and cultural backgrounds of many “tribes” (Harré & Gillet, 1994); juggle the cultures of the

common man, the strategic rationales and the discourses; create confidence in the HK* group as potential future users of the project; and tell the German sub-supplier that the supply is not satisfactory in a way that he/she respects and understands. In all cases one must be regarded as a welcome guest who is welcome to come again, which only happens if the hosts feel enriched and respected, even if difficult issues have been raised. This scenario will be possible when investment has been made in the development of relational sustainability (Gustafsson, 1997).

(* The Union of Commercial and Clerical Employees in Denmark)

6. A project manager's actions need not be preceded by full knowledge

Earlier we mentioned the tenacious myth among project managers that successful project managers are successful because they are especially good at forecasting and planning. Actually, in our experience, many project managers, despite their intellectual understanding of the limitations of this myth in today's changeable world, still cannot relinquish the dream of becoming a project manager who has everything under control. It is curious that this myth is so enduring, since the same people are often heard to declare, for example, that the complexity theory as a metaphor is much closer to the reality of what a project manager actually does.

The notion of the reflective practitioner represents an alternative standpoint in relation to creating new knowledge (Schön, 2001). The reflective practitioner and the theory-in-practice concept should be seen in contrast to technical rationality. According to the paradigm of technical rationality, knowledge is viewed as "a collection of established knowledge deduced from research". Professionalism is guaranteed by securing flawless knowledge prior to action. However, this form of knowledge is not an especially good basis for practical competence in various types of everyday situations.

The difficulty lies in being able to determine the nature of the situation confronting you, and what knowledge is appropriate as the basis for action. Knowledge, therefore, should instead be seen as embedded in forms of practice. The parallel in relation to project management is the contrast between, on the one hand, an approach based on having perfect knowledge (a plan) before proceeding, and on the other an approach based on acting in order to understand how to act. A project manager can benefit from seeing himself as an action researcher, who together with his project team mates and other stakeholders, critically reflects on the feedback derived from the activities thus far, and on the basis of this reflection determines the next course of action.

According to Weick (1995) the most important function of plans is to fire us up and orient us about our current position. However, as he points out, it is not the genius or the content of the plan as such that is decisive in the success or otherwise of the project. (As an example he refers to the mountaineering team who got lost in the Alps, but found their way out using an old map of the Pyrenees, which they mistakenly believed depicted the Alps). Rather, the most important effect of good plans is to stimulate the group to action.

"Once people begin to act,.. they generate tangible outcomes (cues) in some context... and this helps them discover what is occurring, what needs to be explained and what

should be done next. Managers keep forgetting that it is what they do, not what they plan, that explains their success.”
(Weick, 1995).

According to Weick (2003) planning should go no further than a situation where each person is in a position to begin. Plans are things created during action – and afterwards. Project managers who have to carry out projects quickly and in changing circumstances should perhaps look at Rosabeth Moss-Kanter’s distinction between what she calls “pacesetter” and “laggard” companies. In incorporating the Internet into their business processes:

“Pacesetter companies tended to act before they had a complete plan, to empower innovators to run experiments and prototype projects, to adjust rapidly to user or customer reactions and to connect projects to ongoing businesses ... They did not wait to act until they had a perfectly conceived plan; instead they created the plan by acting. In short, they improvised.”
(Moss-Kanter, 2002).

What is common to these two quotations is the need to avoid coming to a standstill (analysis paralysis) in situations characterised by uncertainty, change and confusion, and instead continuing the work regardless, in order to determine what the situation is and what can be done about it. Decisions can for example be seen as experiments that make risk-taking less risky (Busche, 2001). Perhaps the project can in many cases be improvised through experimentation and critical reflection when the time, advice or opportunity are not available for drawing up the Big Action Plan.

In recent years many theorists and authors have described the psychology of improvisation by way of jazz or theatre analogies (Weick, 1998). In order for improvisation to be watchable or listenable to, it must necessarily be based on solid preparation and not only on spontaneous improvisation. The prerequisites for improvisation are many and only a few will be mentioned here. Improvisation requires a large repertoire of phrases and expressions to be used as a basis for “knocking something up”. For a project manager, this means using all his life experience and entire action repertoire. It also requires, for example, that he has gained self-confidence in the situations in which he is part of an ensemble and must respond in the here-and-now to what happens, without having had the opportunity to prepare for “doing it right”. Finally, there must be a loyalty to the meaning of the project (the spirit of the piece).

Improvisation means that the project manager has to commit himself and others to processes for which there is no plan and which they have no control over, but which they cannot avoid or take a time-out from. As ensemble member and project manager you are “in charge but not in control,” and have to make use of what others provide. Right now.

Consider how an MD of a large industrial put it: “I’ve given up being proactive. Now I try to be reactive – and fast!” To do in order to know is quite a different management theory from the one associated with the myth of the great planner. And it is one which requires that the group of project participants are blessed with courage, belief and passion as well as the ability to reflect and create new meaning together. At the same time this presupposes that the project manager has the attitude “I believe it in order to be able to see it” rather than “I’ll believe it when I see it”.

7. Dilemmas are to be lived, not solved

One of the challenges for project managers of complexity, unpredictability and changeability is that oppositions will arise, persist and be dissolved during the project's lifetime. Only in exceptional cases will it be possible to resolve all oppositions and dilemmas before embarking on the project. New ones will surface and others built into the very method that underpins the project.

A classic example is the opposition between the requirements that a project be both of a high quality and cheap and fast. Another dilemma is that it may be necessary to enter into some form of contract at the start of the project, after which things change as the project work goes on. The dilemma faced now is that the project must both meet the demands agreed from the start, and be adjusted to the changes that have arisen during the course of the project.

Bertelsen (2001) distinguishes between conflicts and dilemmas. A dilemma contains a realisation that the present possibilities simultaneously include and exclude one another. Whatever you do is wrong. For example, suppose a project manager was faced by a dilemma that, on the one hand, he needed to choose a final solution for minimising the risk of a poor investment in the development of a prototype. On the other hand, new and unforeseeable knowledge will continue to be developed in relation to technology, the market, organisational policy and so on, meaning it will be expedient to keep the choice of solution open. In both cases, the manager is doing something "wrong".

Dilemmas are built into most projects. Their main characteristic is that they cannot be resolved through rational analysis and a comparison of the pros and cons. In many cases the dilemmas simply cannot be resolved, and the project manager must instead find ways to live with them. The project manager must therefore create a kind of container that can make it tolerable for the project participants to live with the anxiety and tension thrown up by the unresolved dilemmas. This container is a metaphor for the conditions that make dialogue possible, so that different avenues can be investigated and explored and a way can be found to move forward.

Stacey (1996) points to the reward for endurance in his statement that a limited state of tension is a source of creativity. The dilemmas perhaps cannot be resolved within the confines of the existing mindset, but they exert a pressure and demand on the group that they talk and work towards a new understanding. Jung (1998) is on similar lines with his view of the connection between creative energy and the existence of tension and dilemma. To retain both elements of the dilemma and insist on living with it, he says, is a prerequisite and a tool for finding temporary, local and day-to-day solutions to the dilemma. These solutions pop up in the most unexpected ways and places, but only from having an open attitude to dilemmas as problems that cannot be resolved, but must be lived with.

Conclusions

We have examined seven perspectives which can form part of an alternative basis for managing project complexities. We have not set out to present new tools to replace the ones that are currently in use. But we have wished to encourage a shift in the perspective and a new way of seeing project manager competencies. Maybe this is more important than a new tool?

We do not think that the policy of training project managers to be strong individuals is workable. A new order must be created (sometimes by holding onto the old one), which project managers must then supplement with tools in order to get stakeholders onboard and the project team participants motivated. The ideal of being proactive in the sense of having considered every eventuality or argument beforehand and then arranging things to suit one's own ends is now outdated.

And as we have shown in the preceding, we believe that psychology has something important to offer as an alternative (Olsen, 1986), since in our view what gets managers of complexity off the ground is:

- personal clarification and taking a moral stand
- professional management of relationships
- a radically different mindset.

In our experience these ideas are not remote to project managers, but disconcerting, because they involve a change in mindset, philosophy and self-perception, and NOT simply applying a new set of concepts or tools. As consultants, instead of being the “clever Dicks”, we should be well-prepared sparring partners in a process of competence development based on exploration in and of management practice (Hulgaard and Vestergaard, 2003).

Therefore, we must be able to create a state of surprise and chaos for project managers, rather similar to what takes place in laboratories, as well as help them to:

- Maintain and take care of themselves in their jobs
- Create a sustainable life, even when the role of project manager is at its most chaotic
- Grow in line with the job's challenges
- Become expert at being the project/process manager that they and others dream about, and which they are on their way to becoming.

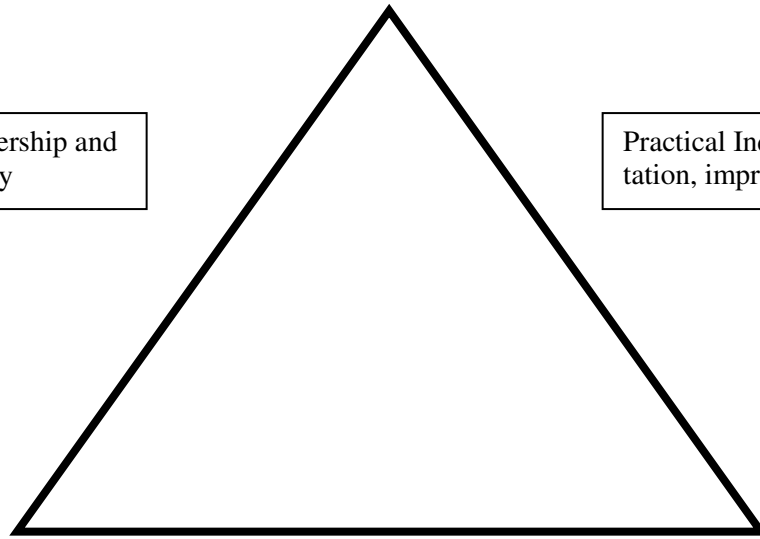
What kind of training will thus be useful for project managers? Maturana's model for development of autopoietic systems, which includes 1) recognition, 2) sufficient disruption and 3) reflection, is in many ways also a serviceable metaphor for principles in a project manager training course based on the foundation sketched out in this article. The best from the open course which is useful for creating sufficient disruption should be combined with internal dialogue, which can contribute with recognition and reflection, and finally individual coaching, which supports personal clarification and attitude-adoption. We believe this needs time, a longer training period in which not all the issues being juggled are resolved straight away, and in which the project manager takes responsibility for the development of his own tools and mindset:

Development Process for Global (Project) Management Competencies

Reflection: coaching on individual level in relation to personal clarification and life skills

Authentic project leadership and relational responsibility

Practical Inquiry through experimentation, improvisation and implementation



Managing Change and Organisational Development

Appreciation: building sustainable relations and cooperation to and among key stakeholders, superiors and subordinates

Disturbance: disruption of patterns through dialogue and feedback processes involving strategic, external and theoretical perspectives

- The development of life skills.
- The possibility of personal introspection, reflection and clarification.
- Project Management training.
- Exploration in and of practice.
- Relational and process management.
- Provide tools and a mindset that take account of unpredictability and guarantee learning.
- Organisational development (change management, implementation).
- Get reality's dialogues into the course room.

PS: this article could equally well have been written about manager development. The difference is that line managers are perhaps not so burdened by having to operate within the old planning paradigm. It is as if the project managers are the stones that are gradually and quietly crushed by the company's irreconcilable realities.

Bibliography

Amtoft, Mette (1994) *Storytelling as a Support Tool for Project Management*. International Journal of

Project Management, 12.

Amtoft, Mette (1995) *Den livsbekræftende død*. Kronik i JyllandsPosten.

Amtoft, Mette og Strøier, Vibe:(1996) *Organisationsudvikling som leg og poesi*, Ledelse i dag, nr. 24. 6. årgang, nr. 4.

Amtoft, Mette (2000) *Psykologisk Kompetenceudvikling af Projektledere – i projektlederetværk og andre lærende dialogfora*. Ledelse I Dag, Forår, 10. årgang, nr. 2.

Andersen, Tom (1991) *Reflekterende team*. Samtal och Samtal om Samtalen. Mareld.

Anderson H., Cooperrider D., Gergen K., et al. (2001) *The Appreciative Organization*. Taos Institute.

Araujo, Luis (1998) *Knowing and Learning as Networking*. "Management Learning", vol. 29, nr. 3. Sage.

Argyris, Chris (1991) *Teaching Smart People How to Learn*. Harvard Business Review. May June.

Barret, Frank J. og Cooperrider, David L. (1990) *Generative Metaphor Intervention. A New Approach for Working with Systems Divided by Conflict and Caught in Defensive Perception*. The Journal of Applied Behavioral Science, vol. 26, nr. 2.

Bateson, G. (2000) *Steps to an ecology of mind*. University of Chicago Press.

Batram, Arthur (1998) *Navigating Complexity*. London. The Industrial Society.

Baumann, Zygmunt (2002) *Fællesskab – en søgen efter tryghed i en usikker verden*. Hans Reitzel, København.

Bertelsen, Jens (2001) *Dilemmaet som lærer*. Samfundslitteratur.

Boscolo, Luigi & Berthando, Paolo (1992) *The Reflexive Loop of Past, Present, and Future in Systemic Therapy and Consultation*. Family Process.

Bushe, Gervase (2001) *Clear Leadership*. Davies-Black.

Campbell, D. (2000) *The socially constructed Organisation*. Karnac Books, London.

Christensen, S. & Kreiner, K. (1996) *Projektledelse i løst koblede systemer*. København. Jurist- og Økonomforbundets forlag.

Deurzen-Smith, E. van (1995) *Eksistentiel Samtale og Terapi*. København, Hans Reitzels Forlag.

Dræby, I. og Vestergaard, A. (1996) *Hvis teambuilding er svaret, hvad var da spørgsmålet?* Ledelse i Dag, Sommer.

Freire, P. (1973) *De undertryktes Pædagogik*. Christian Ejlers Forlag.

From, Frans (1968) *Om oplevelsen af andres adfærd*. Nyt Nordisk Forlag, Arnold Busch.

Frølund, Lone (1987) *Early shame and Mirroring*. Scandinavian Psychoanalytic Review, 20, 35-57.

Furmann, B. and Ahola, T. (1988) *The return of the Question "Why": Advantages of Exploring Pre-existing Explanations*. I: Family Process, December 1988, vol. 27, number. 4.

Gergen, Kenneth (1994) *The Saturated Self*. Basic Books.

Gergen, Kenneth (1999) *An invitation to Social Constructionism*. Sage Publications.

Gergen, Kenneth & McNamee, S. (1998) *Relational Responsibility -Resources for Sustainable Dialogue*. Sage Publ. Inc.

Gergen, Kenneth (2001): *Psychological Science in a Postmodern Context*. American Psychologist , vol. 65, No. 10.

Gervase, R. Pousche & Graème, Coetzer (1995) *Appreciative Inquiry as a Team Development Intervention A Controlled Experiment*. I: Journal of Applied Behavioral Science, Vol. 31, No. 1.

Giddens, A. (1994) *Modernitetens konsekvenser*. Hans Reitzels Forlag.

Goldstein, J. (1994) *The unshackled Organisation*. Productivity Press, Portland.

Goleman, D. (1997) *Emotional Intelligence in Organizations*. Putnam Pub Group; (May)

Goolishian, A. & Anderson, Marlene (1998) *Human Systems as Linguistic Systems*. Family Process, vol. 27, no. 4, Dec.

Gustafsson, L. (1997) *Nomadlivet* Kronik i Politiken: 26/12 og 27/12.

Harré, Rom & Gillet, Grand (1994) *The Discursive Mind*. Sage Publications.

Holmgren, Allan (1991) *Management med dialog*. I: Lederlex. Forlaget Carnet.

Hulgaard, Niels Erik og Vestergaard, Arne (2003) *Kompetenceudvikling på kant med tiden*. Ledelse i Dag. Forår.

- Jacobsen, Bo (1998) *Eksistensens Psykologi*. Hans Reitzels Forlag A/S, København.
- Jensen, J. I. (2002) *Det lineære menneske*. Kronik i Politiken, 1. september.
- Jung, C.G. (1998) *Erindringer, drømme, tanker*. Lindhardt og Ringhof.
- Kierkegaard, S. (1844/1993) *Om begrebet Angest*. København, Gyldendal.
- Langslet, Gro Johnsrud (2000) *LØFT*. Oslo. Gyldendal.
- Loe, Erland (1999) "L". J.W Cappelens Forlag as.
- Løgstrup, K.E. (1991) *Den etiske fordring*. Gyldendal.
- May, Rollo (1983) *The three modes of world. The discovery of being. Writings in existential psychology*. New York, Norton.
- Morgan, Gareth (1988) *Organisasjonsbilder*. Universitetsforlaget. Oslo.
- Moss-Kanter, R. (2002) *Strategy as Improvisational Theatre*. Sloan Management Review.
- Olsen, Svend Erik (1986) *Bevidsthed*. Psyke og Logos, nr. 7.
- Raab, Naomi (1997) "Becoming an Expert in Not Knowing: Reframing Teacher as Consultant". "Management Learning", vol. 28, nr. 2, Sage.
- Ridderstråle, J. & Nordström, K. (2000) *Funky Business*. ft.com, London.
- Rijsman, J. *Groups in Organizations*. upub. paper from Tilburg University.
- Rushdie, Salman (1992) *Harun og eventyrhavet. Et eventyr for børn og voksne*. Samlerens Paperbacks.
- Schön, Donald (2001) *Den reflekterende praktiker*. Klim. Aarhus.
- Shaw, Patricia (2002) *Intervening in the shadow systems of organizations*. CMC paper, s. 25. University of Hertfordshire. UK.
- Shotter, John (1991) *Consultant Re-authoring: The "Making" and "Finding" of Narrative constructions*. Human Systems. Vol 2. Iss.2, p. 105-121.
- Skåderud, Finn (2000) *Uro – en rejse idet moderne selv*. Tiderne Skifter.
- Stacey, R.D. (1996) *Complexity and Creativity in Organizations*. Berrett-Koehler. San Francisco.
- Teece, David J. (1996) *Organizing for Innovation*. Harvard Business Review, Jan/Feb.
- Vestergaard, Arne (2003) *Kompetenceudvikling med projektgrupper som eksempel*. I: Erhvervspsykologi i Praksis. Psykologisk Forlag.
- Weick, Karl E. (2003) *Sense and reliability: A conversation with Celebrated Psychologist Karl E. Weick*. Harvard Business Review, April.
- Weick, Karl E. (1995) *Sensemaking in Organizations*. London. Sage Publications.
- Weick, Karl E. (1998) *Improvisation as a Mindset for Organisational Analysis*. Organization Science, Vol. 9, No. 5, sept.-oct.
- Wheatley, M. (1992) *Leadership and the new Science*. Barrett-Koehler, San Francisco.
- Wheatley, M. & Kellner-Rogers, M. (1996) *A simpler Way*. Barrett-Koehler, San Francisco.
- White, M. (1989) *Selected Papers*. Dulwich Centre Publications.
- Yalom, I. (1980) *Existential Psychotherapy*. Basic Books, NY.