CHAPTER 10

Thinking about Change in Different Colours

Multiplicity in Change Processes

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Management literature has useful concepts to offer, ranging from tools such as business process redesign to concepts like the learning organization. Notwithstanding their value, each of them also have their limitations as arbitrary views of reality and solutions that have limited applicability. In that sense the literature brings value only by way of selective and capable use by change agents. It is their awareness and abilities that make change real. We are therefore inclined to advocate a balance between conceptual knowledge and reflective practitioning, the body of knowledge and learning as a guarantee for professionalism. In this chapter we summarize some insights into the field of organizational change that we have found very helpful in maintaining that balance.

Given that more organizational change takes place unplanned than planned and is more often unsuccessful than successful, we think there is justification for reflection on why change does not work. This implies making things more complex rather than simplifying them: searching for the hidden rules of the game, for informal processes, the political mechanisms in organizations, etc. In the first section of this chapter we do just that. Without going into too much detail here, we will discuss eight mini theories about irrationalities, hopefully just enough to elicit the response: 'Yes, that frustrated our change process too.' The message in this section is also that over-reliance on rational, top-down, and contingency approaches can be rendered fruitless as a result of such irrationalities.

This leads to the second section where we reflect on the question of what makes change work. For this, we explore five prevailing paradigms about change, each associated with certain beliefs and assumptions, and we characterize each in terms of their characteristics, such as predictability, ideals, pitfalls, style of change agent, and so on. These five paradigms, each typified by a colour, cover most change processes we see in real life and the theories about them in literature. The message of this section is that the existence of such multiple approaches can help organizations deal with complexity. At the same time, the fact that these approaches compete and conflict with one another can just as easily contribute to the lack of success of planned change. We propose that the ability of change agents to take a multi-paradigmatic perspective can make the difference between the two. It allows them to be aware of their own and others' ways of defining and solving problems and allows them to make more conscious and collective choices in that regard.

Dynamics of Organizational Change and Learning. Edited by J.J. Boonstra.
 ISBN 0-471-87737-9.

WHY CHANGE IS COMPLICATED

In this section, we describe theories and images illustrating why change is complicated. These theories and images, which we have observed in the past, have considerably widened our insight and will hopefully provide more in-depth knowledge of how change works and, more particularly, why it often does not. These are theories that are recognizable to and useful for people in our profession, and every change agent would do well to be familiar with them and take them into account. We discuss eight theories (more can be found elsewhere: de Caluwé & Vermaak, 2003a). With a degree of poetic licence, we give an outline of each theory together with one or more examples. For each of the clusters of related theories, we discuss the consequences for change processes.

In the first cluster we describe elements of Karl Weick's well-known theory regarding loosely coupled systems. We will talk about ambiguities and the loose coupling between opinions and behaviour. In the second cluster we describe the autonomy and confidence that characterize many staff members, especially in organizations of professionals, and the problems that arise in such organizations such as lack of control and the 'pocket veto'. In the third cluster we describe insights that arise from chaos theory or are related to it. The fourth and final cluster deals with socio-political mechanisms.

ON LOOSELY COUPLED SYSTEMS

The theory of 'loose coupling' was developed by Karl Weick. He considers it applicable not only at the organizational level, with which we deal first, but also at the individual level.

Ambiguities in Organizations

> Imagine that you are either the referee, coach, player or spectator at an unconventional soccer match: the field for the game is round; there are several goals scattered haphazardly around the circular field; people can enter and leave the game whenever they want to; they can throw balls in whenever they want; they can say 'that's my goal' whenever they want to, as many times as they want to, and for as many goals as they want to; the entire game takes place on a sloped field; and the game is played as if it makes sense.
>
> If you now substitute in the example above principals for referees, teachers for coaches, students for players, parents for spectators and schooling for soccer, you have an equally unconventional depiction of school organizations. The beauty of this depiction is that it captures a different set of realities within educational organizations than are caught when these same organizations are viewed through the tenets of bureaucratic theory.

The above passage is quoted from the opening lines of Karl E. Weick's (1976) article 'Educational Organizations as Loosely Coupled Systems'.

In our opinion, this passage can be broadly applied to most of the organizations we are familiar with, certainly where knowledge workers or professionals constitute the majority of the workforce. What is striking in the passage is how ambiguous many organizations are. There are a number of features that show these ambiguities:

- *Ambiguous objectives*: This is the case when an organization functions with various badly or vaguely defined, sometimes even conflicting, goals. These goals can be interpreted in a variety of ways and act as a 'cover' for a mixed bag of activities. Everyone can say 'that is my goal' whenever they want to, as often as they want to, and for as many goals as they want to. Many strategic documents and mission statements have these characteristics: they are often very ambiguous. Sometimes they camouflage disagreement (vague goals as a means of reaching compromises about differences of opinion), sometimes the words and sentences are interpreted in contrasting ways. The formal objectives might

have some relationship with shop floor reality and working methods, but might equally well be entirely separated from them (loosely coupled).

- *Ambiguous technology (work processes)*: Many employees have little insight into the work processes that determine the output and value their organization produces. That causal connection between activity and value is difficult to define and to articulate. What makes good education? What factors contribute to effective medical treatment? What constitutes good consultancy? Both consensus and objective answers to these questions are hard to find. People often do things to the best of their ability and their comprehension, but such mixtures of effort and opinion do not necessarily produce tangible results. In truth, our knowledge about what works and what doesn't is limited. This explains why different teachers and doctors speak and act so differently and get away with it. What is good and what is not?
- *Ambiguous participation*: The involvement of persons or groups in any activity within an organization generally varies and thus is hard to pin down. Who participates in the decision-making about what and with what mandate? Who belongs to which group, department, or commission? Who is supposed to attend which meeting? If we work together, does that mean we take all the decisions together? If we want to increase participation, does this imply that people can sit in and listen to us, contribute ideas, have a vote, or change the whole agenda? The answers to these types of questions vary considerably depending on whom you ask, and, furthermore, the answers can vary from day to day.

In this view it is hard to see system goals that can be achieved along predictable and well-planned routes. The situation is one of ambiguity and variability, many loosely coupled elements that react to one another only slowly, infrequently, or not at all. This view is at odds with the idea of an organization as a consciously designed machine with all its parts geared to one another, with the intention of producing predictable outcomes. Weick's theory is a reaction to the systems approach where rational principles dominate (see, e.g., Knip, 1981).

Loose Coupling between Intentions and Behavior

Loose coupling, according to Weick (1969), plays a role not only at the organizational level but also at the individual level: the way in which intentions and behaviour influence each other. There is a growing awareness that opinions and intentions have little influence on behaviour, the opposite seems to be the case. In other words, intentions and opinions are stated rationally after the event. Weick says that, consequently, behaviour and opinions at the individual level are as much uncoupled as systems are at the organizational level. Behaviour appears to function quite independently of opinions. If you ask people what the reason or motive was for their behaviour, they will construct something on the spot:

> There is a developing position in psychology which argues that intentions are a poor guide for action, intentions often follow rather than precede action, and that intentions and action are loosely coupled. Unfortunately, organizations continue to think that planning is a good thing, they spend much time on planning, and actions are assessed in terms of their fit with plans. Given a potential loose coupling between the intentions and actions of organizational members, it should come as no surprise that administrators are baffled and angered when things never happen the way they were supposed to. (Weick, 1976)

In order to clarify intentions, many organizations invest a great deal of time in developing plans. However, the theory suggests that this is a dead-end street: the coupling becomes even looser than it was. Examples of this can be found in approaches to change where people first hold numerous meetings to decide exactly what it is that needs to be changed and how the change will be tackled. The result is a mass of memos and documents but seldom an actual behaviour change. Worse still, the contents of these memos bear little relationship to how people actually work and behave.

Instead of concentrating on plans, intentions, and opinions, it is also possible to ask people to make explicit their behaviour and to reflect on it. This lays bare the implicit opinions that underlie their actions. The difference between their implicit and explicit opinions becomes clear as it reveals to scrutiny the loose coupling between behaviour and opinions. Weick regards this consciousness raising as an important exercise, the best way of creating a "tighter coupling" between behaviour and opinions.

Implications of Loose Coupling for Change Agents and Change Processes

Weick's observations that ambiguities increasingly occur mean that it is difficult to characterize organizations as entities that follow a univocal course and a clear rational approach. They can much better be characterized as networks of autonomous centres (sometimes right down to the level of the individual staff members) that, in their dealings with each other, are continually searching for an identity and a direction. For change agents, the loosely coupled character of organizations means that, in many cases, they cannot limit themselves to a top-down rational approach. Expanding the coupling between the parts means that the staff members must be involved in the discussions concerning objectives, in carrying out the activities, and in mastering the most important competencies.

The theory of a loose coupling between intentions and behaviour warns us not to focus such discussions on intentions, for they might then have no effect on behaviour. If one wants to influence behaviour during the change process, it is best to first make people aware of their actual behaviour and how this contributes to the problems at hand. This involves making this behaviour visible. Only then one can make explicit the underlying opinions and intentions. Others must be involved in this endeavour: it is difficult, if not impossible, to observe one's own behaviour. By making it explicit, a tighter coupling between behaviour and opinions is created. There are approaches to change or interventions that further the realization of a tighter coupling between opinions and behaviour. These are approaches in which:

- behaviour is made visible;
- there is sufficient safety for people to give and receive feedback on their behaviour;
- the people involved are committed to learning about their own behaviour;
- the skills that enable people to learn from and about each other are present.

On Managing and Being Managed

The trend of ongoing professionalization places new demands on the working methods of managers and staff, but these working methods do not develop at the same pace. We will first address the fixed set of problems that appear to arise from the conflicting orientations of professionals and managers. These problems are dealt with by a number of coping mechanisms and avoidance strategies and we will describe one of these—the pocket veto.

Autonomous Workers and Hierarchical Managers

(Not) managing oneself and (not) being managed is a theme that is much in evidence in professional organizations, where it can take exceptional forms. Therefore, the focus of our description is on professional organizations, but the phenomena described can be found in nearly all types of organizations.

The similarities between Erasmus, a violin maker, and a teacher include:

- both of them are learned/have learned a lot;
- both of them know best how to practise their profession;
- both decide themselves how their relationship with their clients will be;
- both identify themselves more with their profession and their fellow professionals than with the organization of which they are part;
- both learn through their own experience and shape their own professionalization.

(With thanks to M. Petri for his notions on similarities with Erasmus and (later in this section) commonalities with Ford).

In other words, they both have a high degree of autonomy in their work and their own development and in their relationship with colleagues and clients. When there are many people like this in an organization, typical phenomena will surface. We call this the professional organization. Much has been published concerning the management and changing of professionals (Van Delden, 1995; Weggeman, 1997; Vermaak, 1997). The vein is fairly sceptical. Can professionals be managed, steered, or changed? Professionals are not keen to renounce their independent and confident nature, and they behave as if they are still self-employed. Hobbies and solo performances are considered legitimate, so collectivity in products and services is usually difficult to detect. What is more, good professional quality is considered to be of overbearing importance. Correspondingly, commercial result orientation is often lacking. Another factor is that professionals do not easily agree among themselves about the current or desired quality of their work. As a rule, the opinion of someone else is valued less than their own opinion, for why should a colleague know better? The opinion of a customer or a boss is often taken even less seriously, for they are considered to have little or no professional background. Learning together and innovating prove difficult, and knowledge is regarded as personal property and remains locked in the head or in a cupboard. And so three core problems often arise:

- fragmentation as a result of everyone following their own direction;
- mediocrity because people do not learn from one another;
- lack of commitment because there is no focus on results or deadlines.

These core problems occur in most professional organizations. Professionals can hold long, emotional discussions about these problems but here, too, they act as typical freelancers: everyone has their own shrewd solution. Splendid democratic decision-making processes are often doomed when faced with the reality of 'too many cooks spoiling the broth'. 'I cannot force colleagues to do something against their will, let alone vice versa,' the professional will say. A common metaphor for this is 'the wheelbarrow full of frogs'. Pursuit of consensus can paralyse an organization, thanks to the garbage-can model of decision-making. Frustrated by the persistency of all these problems, professionals often suddenly behave like old-fashioned wage labourers: problems are laid at the manager's door.

The pharaohs, Henry Ford, and classic governmental organizations have the following in common regarding their thinking about organizations:

- the favourite way of thinking about organizations is to imagine a pyramid, with the boss at the apex;
- management's authority is legitimate and is not open to discussion;
- rationality and rational argumentation are the dominant principles in organizing;
- planning and control form the basis for steering the employees;
- employees are regarded as expendable/replaceable production resources.

According to Feltmann (1993), managers have a natural disposition to view possession and control, definition and overview, planning and evaluation as guarantees of good fortune. The news media, the shareholders, and the managers themselves refer to 'the man at the helm', 'the man pulling the strings', someone who can be held accountable for the results. Thus, it is implied that there is such a thing as actually managing and controlling an organization and that there can be one person with sufficient power to do all that. This approach has proved its worth in sectors with standardized working methods and where efficiency is prized above all else. Transportation, industry, traditional government organizations: it was here that this management wisdom evolved, a wisdom later canonized in management literature. But bureaucracy also appears to provide us with a number of inherent problems and, in the meantime, 'We have almost reached the point where the term bureaucracy is used to illustrate everything that is wrong with organizations; inflexible, not client-oriented, inhuman, ineffective, and lacking in innovative ideas' (De Leeuw, 1997).

In short, the combination of the bureaucratic manager and the autonomous professional is trouble. A boss who attempts to give strong leadership is faced with a lack of understanding. Top-down

leadership is taboo; professionals are allergic to everything that even hints at the dreaded threesome of 'bureaucracy, bosses, and policies'. Professionals follow their managers' activities not only with Argus's eyes but consider it perfectly legitimate to express unsolicited criticism. They think that they are permitted to publicly discuss the incompetence of the management, but, of course, managers are forbidden to do the same about them. Furthermore, they feel that they have the right to ignore any management decision that clashes with their professional standards and, before you realize it, they try to extend their authority to cover such management matters as budgets and personnel policy. They'll show the boss how it should be done.

Pocket Vetoes

Members of staff want their autonomy to be as great as possible and to push the manager (and other professionals) out of their work domain. Here, the term *pocket* veto is instructive. This term, originating in political science, describes the right the president of the United States has to not approve a bill that has already been passed by Congress, by not signing it into law. The president can put it, metaphorically speaking, in his/her back pocket until the time for approving the bill has expired. Congress is aware of this and has no choice but to accept this prerogative.

In his book *Educational Administration and Organizational Behavior*, Mark Hanson (1996) uses the term pocket veto to describe the power teachers (professionals) have when innovations for classroom interaction are introduced from 'above'. He uses the concept pocket veto because 'its power is exerted through inaction; in other words, the teachers simply did not respond to requests or mandates for change'.

Case Study: Pocket Veto

Boss John sees employee Pete doing something that he does not agree with. It could have to do with the way Pete is dealing with a customer or a colleague. John finds Pete's behaviour 'unacceptable in this day and age' and asks Pete to come and have a talk with him about it.

In that discussion, John explains why this just won't do and, in turn, Pete explains why he does what he does. John then restates his point of view and Pete does the same.

The discussion is closed and both go away thinking that they have made their position perfectly clear to the other.

Two weeks later Boss John sees employee Pete doing exactly the same thing and immediately takes the initiative and arranges a new discussion. There he explains his point of view once more, in slightly stronger language and with a little more power. Pete replies in the same vein and the atmosphere becomes frosty. Afterwards, John says to himself, 'I think he has finally gotten the message.' Pete, too, thinks that his boss has understood at last.

What happened represents only the tip of the iceberg, for below the surface lies a learning process that can be easily assimilated by the average employee.

That learning process is as follows:

1. Make sure that the boss doesn't see what you do; if he cannot observe it, he will have nothing to say about it.
2. Always agree with your boss. Hmmm empathically. Compliment him on his way of thinking; say, 'That's what we'll do or try', but go ahead and do just what you want to or what you think suits best your professional environment, which by now you have carefully shielded from your boss. That is the principle of saying one thing and doing another. It makes the boss believe that his staff is doing things the way he wants. He considers himself a lucky man. The staff are also happy; they carry on in their own way in their own little world.

Pocket vetoes can be found in every organization. There is likely to be a particularly high incidence of pocket vetoes where managers are convinced that their staff have exactly the same view as they themselves do. Such convictions raise alarm bells in us as consultants, whereas it is still the dream of many managers. In our view, managers should be continually aware of the presence of pocket vetoes. Pocket vetoes result from too great a recourse to hierarchy, from serious differences of opinion, or from too little discussion, respect, and acceptance. They are also often the result of staff members regarding the pocket veto as their prerogative, given how work is organized. Think of teachers who shut the classroom door, doctors who close their examining room, consultants who spend time with the client away from his home office, sales persons on the road, and so on. Many employees have the opportunity to make things invisible when it comes to certain areas of their work, and use the opportunity with zeal when the boss asks them to do something that they do not agree with.

The situation can become particularly unhealthy when lots of employees employ the pocket veto. The top then becomes completely detached from the shopfloor and two separate 'realities' arise: the reality of the apex and the reality that exists on the shopfloor. You encounter this to some extent when you join a new organization, where, after a couple of days, the booklet with the internal rules no longer seems to apply. The rules are different. Your new colleagues say: 'OK, that's what is written, but you will have to do it differently or it won't work.'

However, this can occur in various degrees, right up to the pathological. In the worst possible scenario the real communication channels are fully clogged up or are used only for irrelevant matters. A crisis or confrontation is then lurking.

Implications of Ongoing Professionalism for Change Agents and Change Processes

Tensions in (professional) organizations are unavoidable, and change agents should be aware of this. As a result of the distribution of power and competence in these settings, by definition an arena is created where differences of opinion arise. Each professional or employee has their own ideas and is not afraid to express them. Conflict can be reduced considerably by respecting and dividing the domains of managers and staff into those they are best equipped to deal with. Allow the staff to rule over the primary process: their craft, their contact with clients, their development. In this domain the role of managers is best confined to providing support, coaching, recognition, and challenges, while insisting on accountability for the professionals' output. Conversely, managers may claim the secondary processes as their own. Professionals should not meddle here as they do not understand these processes, have no aptitude for managing them, nor do they enjoy doing that either. The managers look after the facilities, take care of support services, and consult with bodies from the surrounding environment.

What remains is a region where professionals and managers cannot leave each other alone, but need one another. Without a meeting of minds between professionals and between professionals and managers, the staff go their own way too much, which is exactly why the three core problems in this sort of organization arise: fragmentation, mediocrity, and lack of commitment. While coherence is necessary, it cannot be enforced by hierarchy or by rational arguments. The tendency to forget the human factor and to pay a lot of attention to decisions about the outcomes of change but little to the change process and implementation just creates new problems, such as a lack of support, unnecessary resistance, and so on. It is important managers or change agents realize that such forgetfulness can make them 'victims' of the pocket veto. At first, everything seems to be going well: the staff appear to be in agreement with you . . . but wait. Then the anxiety begins, you see so little of them these days . . . Any manager who thinks that all is going well in their organization because everything is ticking along quietly probably has much pocket-vetoing among the staff.

It is more fruitful to reward transparency and to be known to do so, even when what surfaces are things that you yourself do not agree with or that are, in your opinion, indisputably wrong. The staff must be

encouraged to carry out their activities openly, to be open to discussion and accountable. They must be discouraged from staying out of sight, not being available to have their actions screened and discussed. In many cases it might be recommended to create horizontal groups where peers show their work, explore its quality, and are willing to learn from this and, if necessary, to adapt their ways. Examples of this type of collective learning include intervision groups, working in teams, clinics, gaming, and intercollegial review. Where learning and experimentation are allowed and supported, there is little need for pocket vetoes. As a change agent, you seek mechanisms to couple tighter what professionals think and do: their cognitions and actions; their opinions and behaviour. If there is one thing you should stay clear of during change processes, it is holding lots of meetings about the intended change. Instead, just embark on the change by acting together, exchanging experiences, reflecting together upon what works, and committing to the next step.

ON CHAOS THINKING

Chaos thinking emphasizes a focus on the underlying patterns in an organization that determine its behaviour. These patterns come in many shapes and sizes. There are patterns that upset the dynamic balance between an organization and its environment by creating either chaos or a steady state. Oscillating patterns of behaviour emerge when organizations pursue conflicting goals, whether consciously or not. Both will be addressed here.

Dynamic Balance

Chaos theory has many 'fathers', particularly in the sciences. One of these fathers is the theoretical physicist Bohm (1992), who reasons that we often unjustly distinguish between the thinker, the thought, and what is being thought about. Bohm sees 'everything that exists' as an explicit order, a temporary, creative swelling in a 'universal stream', which is the implicit order, for which there is no explicit description but can only be implicitly known and recognized. According to Bohm, all our knowledge and science is directed at explaining the explicit order and, in so doing, we make the mistake of not seeing our theories as representations *of* reality but as part *of* reality itself.

This explicit order is often equated with steady states, structures and systems, predictability, and controllability. Organizations are orderly constructions consisting of clear-cut elements (objects) that behave in an understandable manner. Such explicit order is in line with a mechanistic world-view that many of us are quite familiar with when growing up, and one that is still dominant in management literature, stacked as it is with quick fixes and proven remedies. In contrast, chaos theory views systems such as organizations as adaptive network or *holons* whose characteristics cannot be traced back to the characteristics of the constituent parts alone.

Holon

> It was biologists who first described the remarkable ability of all life to form structures with different 'layers'. Each of these systems forms a whole with regard to its parts and is at the same time part of a (bigger) whole (see Capra, 1996). Koestler (1967) coined the word holon, which represents an entity that is a whole itself and at the same time part of another whole. In his view, the world consists of trillions of holons: a whole atom is part of a whole molecule, a whole molecule is part of a whole cell, the whole cell is part of a whole organism, the whole organism is part of a (social) system. In the sense we will never see the whole; there are only whole/parts.
>
> Just like a hologram, which you can cut without losing the total image, every single holon contains an image of the bigger whole. Holons have four capabilities: the capability to act

> independently as an entity, the capability to unite with other holons, the capability to transcend itself, and the 'capability' to decompose itself. (Cornelissen, 1999)

According to chaos theory, people do not focus on individual objects but rather on the relationships between these objects and the patterns that emerge from these relationships. People do not recognize reality on the basis of familiarity with objects but discern reality from observing the emerging patterns between them. In organizations, people weave these patterns into a continual cycle of sense-making. The more patterns being woven, the more dynamic the system. When an organization is extremely dynamic or in flux, then structures, systems, and strategies provide fewer footholds to a change agent than the people who create them. The borders and the identity of the organization become open and fluid: people flow through, cooperative external relationships are sometimes more important than internal ones, old and new ideas coexist, and so on.

Such an 'adaptive network' is susceptible to many forces: complexity and turbulence are considered to be the primary external forces. Dominant internal forces include both the increased autonomy and mutual dependence of the staff, and the diversity of their views about the work and their own contribution to it. The relevance of chaos theory increases as organizations are confronted with an increase in these forces. What are the consequences? Linearity decreases: a single, minor cause can have more and bigger consequences because self-reinforcing feedback loops make the organization more sensitive as a network than it was as a traditional, stable organization. The behaviour of this type of system becomes unpredictable. The best-known example of this is Lorentz's (1963) butterfly theory. To his surprise, he discovered that in his meteorological model a minute change in one of the parameters in the preliminary stage could lead to entirely different types of weather. He published his findings under the significant title, 'Could the Flapping of a Butterfly's Wings in Brazil Cause a Tornado in Texas?'

However, Lorentz also indicated something else; even the most chaotic systems, such as weather, vary within certain boundaries. They have a certain balance. This balance is not static like a marble in a glass and nor is it a periodic balance like the pendulum of a clock. It is a dynamic balance in which the speed of the development within the organization keeps roughly the same pace as the development speed of its ecosystem. If the speed of development is much faster outside the system than inside, the organization moves far from equilibrium: this may sound quite grim but the biologist Prigogine (1985) states that there is hope in this murky chaos; a type of self-organizing ability emerges that, precisely in this type of situation, is capable of creating a new order. In its functional form, this situation demonstrates the characteristics of a learning organization, where the ability of the organization to adapt to its ecosystem is greatly increased.

Lonnan (1998) recognizes five areas in which an organization can find itself and these are shown in Figure 10.1. The areas are specific to an organization as they are a function of the degree of the complexity and the dynamics in and around that organization:

- on the edge of control: static equilibrium;
- between the edge of control and dynamic balance;
- in dynamic balance;
- between dynamic balance and the edge of chaos;
- on the edge of chaos: out of balance.

Dynamic balance, or as Stacey (1996) calls it 'bounded instability', may sound as if it is the 'best' area. Appearances are deceiving. An out-of-balance situation, for example, can provide many opportunities for renewal. Chaos can be functional or dysfunctional. This too is specific to the *holon* in question. In environments with high-paced development, some organizations have difficulty finding the right adjustment to their dynamic surroundings.

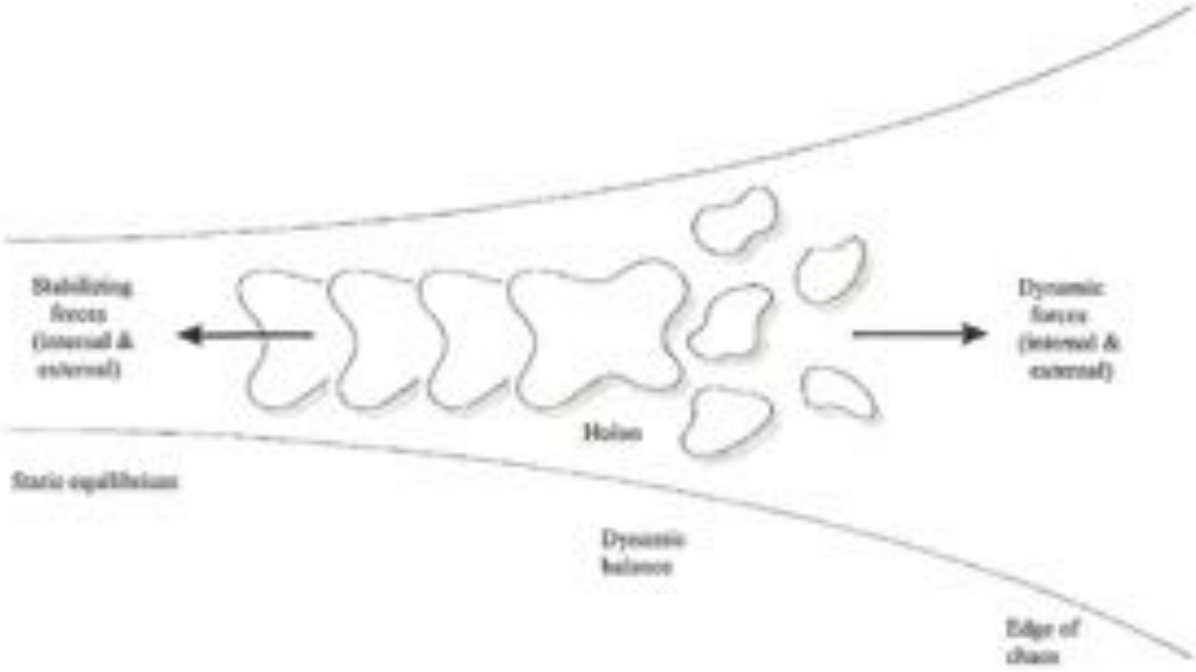

Figure 10.1 Five areas where an organization can find itself

Case Study: Dysfunctional 'Static Equilibrium'

Real-life example: a health care insurer that loses contact with clients and staff. Its internal organization is characterized by centralized management with corresponding 'bureaucratic layers': middle managers who are busy maintaining the status quo. The internal organization is an archipelago of small fiefdoms that enjoy a great degree of autonomy. The terms of employment are excellent, but people's mobility and eagerness to learn are largely absent. There is great resistance to making a clean sweep. It is an example of an organization that is too involved in keeping everything manageable while the environment of the financial sector undergoes dynamic changes. There is too much emphasis on:

- internal matters, leading to navel-gazing;
- material aspects, leading to fire-fighting based on facts and figures;
- business processes, leading to 'more of the same' improvements which are too rigid to make a difference;
- continuity, leading to a compulsion to reach consensus and keep things together;
- problem-solving, which leads to reactive measures.

Case Study: Dysfunctional Out-of-balance Situation

An IT department in a bank is under great pressure from the front office to introduce all kinds of adaptations to the IT systems. The department caves in under this pressure and all involved step up their work tempo. Client orientation (the front office is the internal client) is, after all, the number one priority. As a result of the enormous workload, the staff abandons the quality handbook and the project management procedures. Mistakes start to creep in. Via various improvised adaptations

to the system and cooperation with other departments, an attempt is made to create new patterns in the applications system without these being understood by management, partly because they have not been involved in the process. The bank is confronted with an increasing and predictable operational risk. Managers come to regard the organization as a 'twilight zone'. Here, we have an organization that finds itself regularly on the edge of chaos, as if it wants to make a great leap forward in adapting itself to the dynamics of the environment. In total contrast to the previous example, in the IT department there is too much emphasis on:

- external aspects, which leads to 'overheating';
- immaterial aspects, leading to day dreaming;
- mental processes, causing unpredictability;
- evolution, with the risk of things falling apart;
- reframing, causing lots of new ideas but little being completed.

In both examples there is no dynamic balance. The health-care insurer tries to control a world where this is no longer possible. In a manner of speaking, it has fallen behind the dynamic balance. The bank IT department becomes unmanageable because it is unable to create (new) order in an uncontrollable world. It is too far ahead of the dynamic balance. We see many organizations struggling with these kind of dilemmas, and have seen that their reactions, especially when based on their own previous successes, do not guarantee successful adaptation. Making a clean sweep in the bank could result in the organization becoming more stable and their risks more controllable, something that would not be possible along traditional, bureaucratic lines. The health-care insurer can scratch the surface of the problem by providing courses in client-oriented behaviour for its personnel. Skills would improve, but this does nothing to create the kind of decentralized decision-making and self-steering that is instrumental for dealing flexibly with the turbulent environment they are in.

Structural Tension and Structural Conflicts

In 1996, Fritz wrote his book *Corporate Tides*, in which he explains 'inescapable structural laws' that any organization is subject to. He states that organizations fall into two categories: they advance or they oscillate. That distinction depends on whether they take the structural laws into account in how they run their organizations. An organization that does so sees its actions crowned with success. An organization that doesn't can undertake exactly the same actions—TQM, learning conferences, breaking down the hierarchy, information system, and so on—but it will not achieve lasting success. The structural laws are an often invisible, underlying pattern that drives an organization's performance. How does it work?

> Every time we go through some major organizational change, our executive managers find 'tools' or methods to help. ABCM, reengineering, different process consultants bring in other methods—we implemented them, but then we find half way through the process the organization isn't taking them on. So then we abandon them, but later new tools are brought in. People are really up in the air about it all. (Fritz, 1996, quoting Greenidge, a manager at BC Telecom)

Oscillation is a result of 'structural conflict', people pursuing conflicting and competing goals. A posh term for this is *balance management*, and its characteristics can be found in the vision statements of many companies: it is a repository for all sorts of desirabilities but not for choices. Yet it is exactly by not making choices, by trying to please everyone, that you end up with oscillation. An example: an organization aims for both profit and expansion. First, the costs are cut, producing more profit, but then there is a reduction in growth, which is countered by more investment. As a result, the profits decrease and, once more, costs are cut. There are various types of this sort of structural conflict that bring organizations swaying from one measure to a juxtaposed one and then back again. For example:

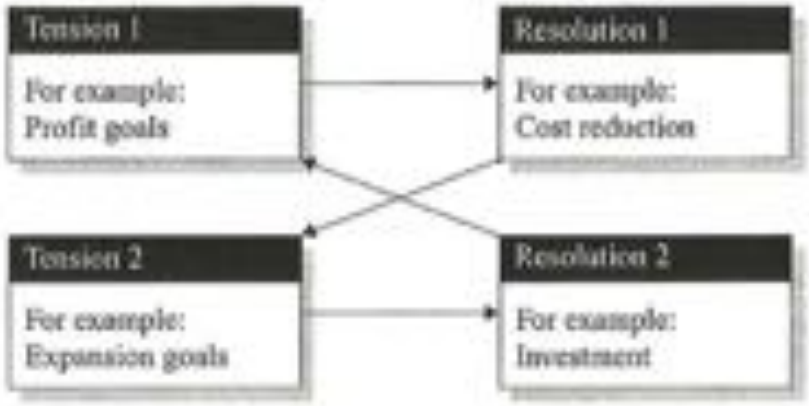

Figure 10.2 Structural conflict

- the organization wants to meet short-term demands ('quick fixes') but at the same time wants to strive towards long-term growth needs (the long haul);
- managers want to control outcomes (centralized decision-making) but, at the same time, management also wants to include and involve employees (delegation of decision-making);
- there must be entrepreneurship (decision-making) but, at the same time, risks should be avoided (avoid decisions);
- there should be growth (decentralization), but stability must be preserved (centralization).

How can you recognize a structural conflict? In a structural conflict (Figure 10.2), actions that appear to be successful in themselves make the organization even more off-balance: oscillation increases. In organizations that oscillate, success is neutralized.

Advancement works differently: there is structural tension but no structural conflict. The tension is between a desired state and the present reality. Conflict is absent as there is only *one* desire or goal, not two (or more) competing ones. Some organizations are lucky enough to have a clear hierarchy of goals and can thus advance. Some have it only on paper and their oscillating behaviour shows it to be fiction. There is only one way to stay clear of oscillation: that is to get to a situation where goals do not compete. This is not a cosmetic distinction. Sometimes this is achieved by a new overarching goal, more often by a (painful) choice to prioritize. Internet companies, for example, managed to stay out of oscillation several years back by putting growth before profit. It works if you are willing to pay the price. In structural tension the difference between goal and reality calls for action, action that is the logical consequence of structural tension. This time successful actions do not create oscillation, but bring the organization closer to its vision. Structural tension does not make life a breeze. First, it can be confrontational to be honest about both reality ('This merger does not work') and goals ('We want a smaller company'). Second, actions might still fail, but if the desire is real and persistent, obstacles are there to teach lessons and failures show us what works and what doesn't. This is in contrast to structural conflicts where setbacks are often a reason to reassess efforts or to formulate new goals or visions.

Fritz (1996) states that these laws, certainly at the organization level, are often unknown or forgotten. The organization grows, but the forces that drive it often remain undetected. An organization that fails to recognize these forces, its driving 'structure', will, he predicts, sooner or later end up oscillating.

Implications for Change Agents and Change Processes

All theories allied to chaos thinking emphasize diagnosis: recognizing the driving force and underlying patterns and giving them meaning. What drives this organization? Why do things always end up the way they do? Taking action without a full awareness of underlying patterns leads to fight-or-flight behaviour. This statement is heartily confirmed by Fritz (1996), who predicts that any reactive course

of action leads to oscillation: the incentive to fix a problem decreases with its success and thus makes the problem re-emerge at a later date. The dominant analytical, diagnostic toolkit of change agents is, however, often insufficient to detect drivers and patterns. The reason is that it is used to diagnose rational, limited areas; it focuses on facts and objects, on the organization as a closed system, and on the current situation. The desired diagnosis would have a much broader focus, for example, also on the interpretations of those involved, on interaction between people, on relationships between objects, on the interchange between the organization and its environment, and on the organization's history. One of the most important principles is that the resulting insight in 'why things are the way they are' must first be embraced, accepted, and acted upon. It is the same kind of process as in personal growth. Before you can move on to the next (life) phase, you have to take a hard look at your life up to this point, see it for what it is, and accept responsibility for it, however hard the facts may be. Crisis, from this point of view (compare a 'midlife crisis'), is a warning that you cannot carry on in the same old way. It is a call to reflect and to distance yourself from dysfunctional dreams and images. It is a time for a new start.

Another implication is that, on the basis of this insight, space must be created for new patterns. This usually requires breaking down barriers that block renewal and providing opportunities for new energy (ideas, initiatives, etc.) to manifest itself within the organization. It helps to challenge the drive and confidence of renewers; coaching and supportive leadership can further assist them to play the role of heralds and new heroes of a new organizational game. According to Lorsch (1998), when an organization tries to achieve a dynamic balance in a turbulent and complex environment, still more is required: raising individual self-confidence must go hand in hand with raising group consciousness. Typical interventions are examining the dominant mental maps, analysing trends and scenarios, and applying dynamic system thinking. All this should preferably be done collectively in dialogue using team settings, networks, information-rich environments, and by promoting diversity (in people, ideas, etc.). The aim is to somehow combine personal initiative and new perspectives with some kind of mutual commitment. This results in collective strategies, commitment, and choices.

Fritz is optimistic when it comes to crafting new patterns in an organization but emphasizes this final step before all others: real heartfelt choices have to be made in terms of a hierarchy of goals in order for there to be progress. This implies that common strategies have to be based on personal involvement and commitment instead of being socially desirable compromises. In this light, Lorsch emphasizes that any 'new order' goes beyond compromising to actually reconciling apparent opposites. He mentions, among other things, the following dichotomies:

- internal and external focus: reconciling stability with pleasing target groups;
- material and immaterial focus: reconciling matter-of-factness with experimentation and exploration;
- business processes and mental processes: reconciling efficiency with innovation;
- continuity and evolution: reconciling mutual adjustment with an optimal conflict level;
- problem-solving and reframing/breakthroughs: reconciling a drive for action with a drive for learning.

SOCIO-POLITICAL MECHANISMS

Strong influencing mechanisms can exist in the 'invisible' world of the organization: classic action theory introduces the role of power and political processes as determining factors in organizational life, whereas the 'organizational iceberg' emphasizes that the informal organization may be stronger than the formal one and undermine it. We will address both consecutively.

Action Theory and Power

Action theory (Parsons, 1977, 1978) argues that people have their own interests and goals and cannot help but pursue them. In order to achieve their goals and interests, they form coalitions and power blocks (see, e.g., Cummings & Worley, 1993; Hasson, 1996). Power is used as the instrument for

meetings one's interests. The seeming irrationality of a situation may disappear if statements, actions, and interactions are analysed by a change agent with an eye for the interests of members, departments, networks, or systems within the organization. This is when the action theory proves its worth: when the laws of the socio-political system come into action (see Hanson, 1996). Power is an important factor in organizations, it covers a much wider area than just the formal power of management, and can be a decisive factor in the start, the course, and the outcomes of change processes. The choice of whose definition of the environment is employed, including context and reason for change, is strongly influenced by who has the most power. The same applies to the definition of the content of the change, the appointment of an external consultant, and more. It can be extremely useful and insightful for a change agent to analyse the differences of opinion in a board of directors concerning an intended change programme and to interlink this with how power and interests are distributed in the board.

Action theory argues that each individual or group tries to hold on to or increase its influence. This can be done in various ways: by behaving unpredictably; by concealing information or distorting it; by imposing rules for the game, or, on the contrary, simply ignoring them; by forming coalitions; or by blackening somebody's reputation. Action theory sketches how individual interests and motives unavoidably lead to power blocks and conflicts. The organization as a uniform, cohesive system in no way fits into this picture.

The theory is highly relevant in professional organizations because there, by definition, power is widely distributed. Professionals possess informal power based on their knowledge, personalities, and contacts. Managers might draw on their own personality, but most of their power is generally derived from their formal hierarchic position. They are well-matched opponents, which means that conflicts flourish and victories are hard-won. An example of this is the way that medical specialists have been able to voice their criticism of hospital management for many years. In the summer of 1997, the Dutch national association of these specialists placed a full-page advertisement in the Dutch national dailies. The ad's title parodied the health warning on cigarette packets and, underneath, in small letters, was added: 'the new health bill forces us to be at the beck and call of the bookkeepers of hospitals and insurance companies. This development contravenes the principles of the Hippocratic oath and our medical ethics.' The closing sentence in the advertisement was: 'Our common sense does not allow us to understand present-day hospital policies.' We noticed that many hospital managers had an equally hard time making sense of the medical specialists. In the discussion that results from interactions such as these, one of the parties is usually a victim, and in most cases it is the manager. Looking at the consulting assignments we have carried out over the years, it appears that a change of management takes place much more often in organizations of professionals and is often instigated by conflicts between management and professionals. However, power, and the processes aimed at obtaining and guarding power, play an important part in all organizations and provide the explanation for much apparent irrationality.

Informal Organizations

The Hawthorne studies brought about an important revolution in the school of thought on organizations (Mayo, 1933; Roethlisberger & Dickson, 1939). These experiments aroused interest in informal group processes and inter-personal relationships: 'A happy worker is a productive worker.' Roethlisberger and Dickson conclude:

> Many of the existing patterns of human interaction are nowhere to be found in the formal organization . . . Too many people assume that the organization of a company is the same as a blueprint or an organization chart while, in fact, this is never the case.

The informal organization can be seen as those processes and behaviour that are not formally planned or anticipated but that occur spontaneously as a result of people's needs. People bring their hearts and

Figure 10.3 The formal and the informal organization

minds to work, not just their hands. The formal organization can be regarded as the tip of the iceberg. The informal characteristics of organizations form the huge hidden mass of the iceberg, out of sight but always present and often at least as influential. Figure 10.3 illustrates these characteristics.

There are always informal activities, and these activities appear to increase if the formal organization cannot or will not meet certain needs. It is as if a 'shadow world' is formed that can both initiate and frustrate change. When the shadow world makes its presence felt, a bit more of the iceberg is revealed. Those involved often perceive this as an increase in informal activities, and because these activities are generally neither superficial nor temporary, they can cause quite a fright. Feelings, interests, loyalties, and other similarly difficult-to-control matters come out into the open. Managers start to wonder, 'What else is going on?' and suspect that it is indeed only the tip of the iceberg that has become visible.

Informal activities can help to strengthen the formal organization. For instance, difficult decisions may have been 'chewed over' in the corridors. A football tournament or a study trip can help a group of colleagues to get to know and trust one another, and the friendly atmosphere that ensues can do wonders to support much-needed cooperation in the office. However, informal activities can also hinder formal activities. A work-to-rule action by a group of secretaries can make it clear that they are no longer willing to tolerate the extra workload. Informal organization is neither good nor bad. Sometimes opposition is a valuable warning: change is necessary. If the warning is ignored, opposition can grow to destructive proportions, and then the informal organization no longer warns but undermines the formal one.

French and Bell (1984) sum up the characteristics of informal activities as the 'culture of an organization': activities that better describe the character of an organization than any set of formal activities. They claim that in many change processes these informal activities receive little or no attention during diagnosis and, because of this, what really matters is not taken into account in the change effort. Change processes then become more like a fancy lottery than a planned and professional endeavour.

Implications for Change Agents and Change Processes

These theories emphasize how factors hidden from sight and unaddressed in the formal organization can frustrate or help a change process. The first important implication for change agents is that this world deserves to be diagnosed, but that this need not necessarily be done in great detail: French and Bell (1984) demonstrate that the informal organization is difficult to recognize fully and that gaining knowledge of this world demands much more effort and perceptive ability than understanding its formal

counterpart. The diagnosis must, however, be adequate enough to identify the major opposition and support mechanisms for the change involved. Concerning action theory, it is a question of identifying sources of power, formal and informal leadership, interests, and coalitions. In the informal organization, culture aspects apply. With an economic exchange it is a matter of recognizing the unwritten rules of exchange that either strengthen or weaken the positions of the individuals in a group.

A second implication concerns the use of these insights during the change process. The change agents will have to use their insights concerning power relations and positions when assigning roles in the change process. If power plays a dominant role in the organization, they would do well to involve the most influential players in crucial decision-making processes, or to entice an influential opponent into taking responsibility as a champion of important parts of the change process or instead exclude them altogether from the process, and so on. The intention of the change agent in these kinds of organizations is to ensure that there is a sufficient power base behind the intended change. If this is not the case, they had better pack it in right away.

Change agents can approach the informal organization in two ways. They can stimulate and even initiate informal activities in support of the formal process. A weekly office cocktail hour might serve to test new ideas or sow the seeds of controversial initiatives. A night with self-made sketches, where colleagues poke harmless fun at the organization's sacred cows and each other's behaviour, can allow everyone to let off steam so that a fresher start can be made at the strategic conference the next morning. They can also try to open a discussion about dysfunctional informal activities by highlighting the goings-on of the invisible world and challenging their legitimacy. This intervention can correspond to creating a tighter coupling of opinions and behaviour: the tensions between the formal organization (intentions) and the informal real life practice (behaviour) are then out in the open. These are serious interventions that become necessary if the two worlds have grown miles apart and the taboo about discussing it has corrupted the organization.

FOUR CLUSTERS OF THEORIES ABOUT IRRATIONALITIES

We consider the theories that we have outlined to be both applicable and relevant, irrespective of the nature of an organization or of the change process. The degree to which this is the case can, of course, vary considerably. In some situations you may encounter the pocket veto, or there may be a power struggle going on. The management may be extremely bureaucratic and have little respect for the workers. The informal organization might be at odds with the formal organization, or, conversely, none of these situations needs to occur. What a change agent needs to do is to gain a good understanding of theories and images such as these and to make use of them when diagnosing and planning a suitable approach to change.

What the theories we have outlined have in common is that they demonstrate why change is complicated. They emphasize the irrationality of change processes or, put more precisely, they emphasize the existence of other sorts of rationality that we might not be aware of, or familiar with in organizational life. We find this function important. The theories make us think twice about the one-sidedness of how we talk with our colleagues and clients about change.

In our opinion, the dominant way of talking about change is captured in the terms *planning* and *contingency approaches*. Both assume the rationality of change processes as if new organizational states can be predictably 'constructed'. A stereotypical example is as follows: change agents diagnose the current situation (*IST* situation) in an organization and define what it should become (*SOLL* situation). To do this, they often use a checklist, e.g of organizational aspects: strategy, structure, systems, management style, culture, and personnel. The contingency approach appears in the principle that all these aspects are considered to be in a balanced and coherent relationship to one another depending on the kind of business and business environment the organization is in. Because of this, it is thought that in change processes, you cannot change one without the other. If one aspect needs to be changed, a

change in the other aspects will be required. The planning approach comes in where a change process is considered to consist of placing on a time axis with neat decision moments all the activities that convert, step by step, at the same time, all the differences between the present (*IST*) and the future (*SOLL*).

This stereotype is tempting, partly due to its neatness and suggestion of control and simplicity of change processes, a desire that we recognize in ourselves as well. The theories in this chapter can be regarded as falsifications or disruptions of this stereotype: explanations of why a predictable systematic route from present to future does not (always) work. A change agent or manager can read this as bad news: there are obstacles, there is resistance. It is as if dark powers are causing disarray from a shadowy, invisible world; as if weeds and roots are causing cracks to appear in the asphalt and making the road difficult to travel.

However, this is but one side of the metaphor. In the same way that chaos is order which is not yet understood, and irrationality is a way of thinking that is not understood, each of the theories offered here also denotes positive forces; all is not negative. Resistance can also be the guardian of stability or an initiative for a different future. Ambiguities in organizations also create space for minority views and experiments. The pocket veto can help staff to survive bad management or even to achieve fantastic results in their own domain, individually or together with valued colleagues. Turning the metaphor around, it is not so much the weeds that attack the asphalt but the forces of nature that cannot be denied. Life always finds a way.

The theories give change agents food for thought and alternative viewpoints to observe and interpret organizations. The theories provide indications on how to adapt change processes to make them more effective. For instance, the very existence of loosely coupled systems implies the importance of transparency, providing feedback, and learning to understand one's own behaviour in a group setting. Such adaptations breathe new life into the change. Managing autonomous staff implies, among other things, the importance of limiting domains and providing negotiation platforms where the struggle between professionals and their collective struggle with their managers to defend their own interests can be made productive. Chaos thinking implies, among other things, the importance of discovering the driving forces behind an organization and giving them meaning, creating space for emerging champions who have a commitment to one another and to the (controversial) changes and, by so doing, create a new order. Socio-political mechanisms imply, among other things, making good use of sources of power to organize informal activities and optimizing non-formalized barter.

We are of the opinion that contingency and planned approaches can work, but we feel just as strongly that the four clusters of theories indicate that, sometimes, it is necessary to plan and implement additional interventions. There are also situations where additions will not do and a totally different approach is required. We have tried to find a spectrum of approaches that can stand up to the practice of changing organizations, views that do not nullify each other, but that can exist alongside one another. The following section contains explorations of these views.

MULTIPLE WAYS OF THINKING ABOUT CHANGE

A search for the underlying values of the word *change* results in a whole range of meanings and different rationalities. For example, the word 'change' is used to describe the desired outcome (the aim, product, result, effect): what is finished, what has been realized or achieved. This is seen in such phrases as: 'This change is obvious', 'The building is greatly changed', 'Pete has changed a lot'. But the word 'change' is also used for the process (plan of approach, working method, route, activities): the transition from one situation to another: the change process. This can be seen in such phrases as, 'The change is still in progress', 'We are in the process of changing the building', 'Pete is changing'. The above distinction is generally common knowledge. We are used to distinguishing between the outcome and the process of change.

In addition, there is a world of difference between the underlying assumptions of the various strategies or approaches that are applied to change. As a result, the practical applications of these various strategies or approaches vary widely. Conceptual clarity is necessary to better express the various meanings of the word change for several reasons:

1. It facilitates clearer communication between the people involved. For example, communication between managers, between consultants, between academics, and between these groups. Misunderstandings and conflicts can and do arise, for instance, when change strategies are discussed in a management team between people who believe change is essentially a power game and people who believe it is a rational endeavour. Implicitness and absoluteness of their respective belief systems considerably complicate communication. A new short-hand language for this complex subject matter can increase mutual understanding and create the possibility for shared interpretations and meanings.
2. It can be used to characterize dominant paradigms in groups or organizations as a whole. In short, it could serve as a diagnostic tool for characterizing different actors involved in a change effort. Moreover, the paradigms themselves represent different views of the organization and its problems as well. Such different viewpoints help paint a more complete and complex picture of organizational life, as argued in the previous section.
3. It provides a map of possible strategies to deal with organizational issue. The idea is not that 'anything goes', e.g. a '5 to 12' situation where a company is faced with great losses is probably not best dealt with by means of patient participative planning. Thus, it is both relevant to know what kind of approaches are available as well as having some sense of indicators that facilitate a choice of which approach is more fitting in a certain situation than others.
4. It offers change agents a tool for reflection. What are your own assumptions? What is your (key) competence for bringing about change and what are your limits? In knowing the answers to such questions, change agents are more able to define the area and the limits of their expertise. Also change agents can become clearer about their preferences and rethink their own professional development.

In the next sections we will first distinguish between five meanings of the word 'change' and give colours to these meanings. Next we will elaborate on their characteristics and make a link with existing literature and schools of thought. We will apply the colours to some examples and sum up ideals and pitfalls. Finally, we will discuss the possibility of more characteristics and colours and briefly explore meta-theoretical implications.

Five Meanings of the Word 'Change'

In just a couple of sentences, we want to make clear the five distinct meanings that the word 'change' can have. The five ways of thinking differ in the assumptions that they make about why and how people or things change. This is illustrated and clarified in Table 10.1. Each way of thinking has been assigned a colour. This simplifies the naming of the concept (which is further discussed later). A certain degree of logic is attached to the choice of the colours, which is also indicated below.

A. 'We are changing the policy.'
'Individual interests have been transformed into group interests.'
'The goal has been changed because of pressure from Pete.'

Yellow-print thinking assumes that people change their standpoints only if their own interests are taken into account, or if you can compel them to accept certain ideas. Combining ideas or points of view

Table 10.1 Assumptions behind the five ways of thinking

	Things/people will change if you
Yellow-print	can unite interests of the important players can compel them to accept (certain) points of view/opinions can create win–win situations/can form coalitions demonstrate the advantages of certain ideas (power, status, influence) get everyone on the same wavelength can bring people into a negotiating process
Blue-print	formulate a clear result/goal beforehand lay down a concrete plan with clear steps from A to B monitor the steps well and adjust accordingly keep everything as stable and controlled as possible can reduce complexity as much as possible
Red-print	stimulate people in the right way, for example, by inducements (or penalties) employ advanced HRM tools for rewards, motivation, promotions, status give people something in return for what they give the organization manage expectations and create a good atmosphere make things attractive for people
Green-print	make them aware of new insights/own shortcomings are able to motivate people to see new things/to learn/to be capable of are able to create suitable (collective) learning situations allow the learning process to be owned by the people involved and geared towards their own learning goals
White-print	start from people's drives, strengths, and 'natural inclinations' add meaning to what people are going though are able to diagnose complexity and understand its dynamics give free rein to people's energy and remove possible obstacles make use of symbols and rituals

and forming coalitions or power blocks are favoured methods in this type of change process. Change is seen as a power game or negotiation exercise aimed at feasible solutions. This way of thinking fits smoothly into change processes where complex goals or effects must be achieved and in which many people or parties are involved in mutually interdependent ways.

We call this way of thinking 'yellow-print thinking'. Yellow is the colour of power (e.g. symbols like the sun, fire) and of the type of process ('brooding and coalition formation around a fire').

B. 'The building has been changed.'
'The production line has been changed to meet the specifications.'
'The information system has undergone radical change.'

In blue-print thinking it is assumed that people or things will change if a clearly specified result is laid down beforehand. All steps are planned down to the last detail. Control over the result, as well as the path to be taken, is kept well in check. Project management is an example of this way of thinking. It is a favourite approach in change processes where the result and the path can be well defined and predicted. Change is considered to be a rational process aimed at the best possible solution.

We call this way of thinking 'blue-print thinking'. A blueprint is the (architectural) design or plan that is drawn up beforehand and guarantees the actual outcome.

C. 'I change the organization.'
'The stimuli for talent development have changed.'
'We have changed our way of rewarding and disciplining personnel.'

Change in this way of thinking is accomplished by stimulating people, by making things appealing to do. In this way of thinking it is important to stimulate people and to inspire them, to seduce them into acting as desired. We call this way of thinking 'red-print thinking'. Red-print thinking assumes that people and organizations will change if the right HRM (Human Resource Management) tools are employed and used correctly. In other words, people change their behaviour if they are rewarded (salary, promotion, bonus, a good evaluation) or 'penalized' (demotion, poor evaluation). Thus, a key concept is barter: the organization hands out rewards and facilities in exchange for personnel taking on responsibilities and trying their best. On top of this, however, management's care and attention are also important. The aim is a good 'fit' between what individuals want and what the organization needs.

The colour chosen here refers to the colour of blood. The human being must be influenced, tempted, seduced, and stimulated.

D. 'I am changing Pete.'
'We have learned a lot, and as a result a lot has changed.'
'Change equals learning.'

In green-print thinking, the terms 'change' and 'learning' have very similar meanings. People change if they learn. People are motivated to discover the limits of their competences and to involve themselves in learning situations. They are provided with means of learning more effective ways of acting.

The aim is to strengthen the learning abilities of the individual and the learning within the organization. If people learn collectively, the organization learns and as a result change takes place.

The colour green is chosen because the objective is to get people's ideas to work (with their motivation and learning capacity), giving them the 'green light'. But it also refers to 'growth', as in nature.

E. 'Pete is changing.'
'This change is filled with meaning.'
'Everything is continually changing.'

In white-print thinking, the dominant image is that everything is changing autonomously, of its own accord. *Panta rhei*: everything is in motion. Where there is energy, things change. When this is the case, 'the time is ripe'. Complexity is regarded as the enriching nature of things, not as disruptive chaos. Influencing the dynamics is a favourite approach. White-print thinking assumes that failure results where we think we can direct and manage change. It is more about understanding where opportunities lie and searching for the seeds of renewal and creativity. Sense-making plays an important role in this, as does the removal of obstacles and explicitly relying on the strength and soul of people. External stimuli are deemed of lesser importance.

The colour white reflects all colours. But more important, white denotes openness: it allows room for self-organization and evolution. The outcome remains somewhat of a surprise.

The colours are basic colours plus their 'sum': white. The word 'print' denotes the endeavours of change agents to work more or less according to some preconceived plan (compare 'planned change'), even if they consciously allow everything to run its own course, so to speak. In a certain sense, you will want to be able to forecast something about how the change is going to work out. Change agents want to maintain a causal relationship between their actions and the outcomes of the change, however different

the managing and planning might look in each of the colours. We examine this more thoroughly in the following sections.

FIVE WAYS OF THINKING ABOUT CHANGE IN MORE DETAIL

In this section, each way of thinking is discussed. We try to describe its essence, referring to existing literature. The type of change process is also described.

Yellow-print Thinking

Yellow-print thinking is based on socio-political concepts about organizations, in which interests, conflicts, and power play important roles (see, among others, Pfeffer, 1981; Morgan, 1986; Greiner & Schein, 1988; Hanson, 1996).

Yellow-print thinking assumes that getting everyone on the same wavelength is a change in itself. Policy-making or producing a programme for action requires getting the powers that be behind it, whether it is power based on formal position or informal influence. It is thought that resistance and failure are inevitable if you do not get all or at least the most important players on board. This happens through the gathering of interests, creating a power base, and then solving contradictions or conflicts by negotiation.

Carrying out the policy or programme to successful implementation demands the careful holding together of these interests by the change agent, manoeuvring in a (possibly shifting) balance of power, resolving conflicts, and so on.

Setting goals, determining policies, and formulating programmes is done by creating (political) support, by gathering together interests, by proposing win–win situations, and by political games, power plays, and negotiating tactics. Sticking to and realizing the outcome of these processes (in terms of goals, the policies, or programmes) is a huge task because the socio-political context stays dynamic.

The 'management' of the process of policy formation and sustaining commitment demands certain political skills on the part of the change agents as well as the ability to operate in a complex area of interests. Facilitating communication, lobbying, negotiating, and third-party conflict resolution are much-used interventions. The change process can be employed within an organization or between organizations.

Type of change process

The result of change is difficult to predict because it depends on the distribution and shifts in standpoints and influence of the most important players. What is more, for a change agent, the process is difficult to structure and plan. The creation of a 'negotiating arena' in which the interested parties are represented is a means that is often used, as is an independent authority or body as facilitator. Specific rules of the game can be agreed on. Consulting with their power bases, the interests of all representatives need to be carefully built in during the negotiation process.

The foremost consideration of the yellow-print change agent is: always bear in mind the conglomeration of interests, parties, and players.

Blue-print Thinking

Blue-print thinking is based on the rational design and implementation of change (see, among others, Hammer & Champy, 1993; Kluytmans, 1994). Project-oriented working is a striking example of this (see, among others, Wijnen et al., 1988; Kor & Wijnen, 2000). Scientific Management (Taylor, 1913) is a classic example of blue-print thinking.

The theory behind blue-print thinking is to carefully describe and define the outcome or the result beforehand. The activities needed to achieve the result are planned according to rational arguments and expertise. There is continuous monitoring based on predetermined indicators to check whether the activities are leading to the desired result as planned. If not, adjustments are made to achieve that which has been agreed upon within the frameworks of time, money, quality, information, and organization.

The process and the result are, more or less, independent of people. Controlling (managing, planning, and monitoring progress) the change is considered feasible. Management is able to force and effect the change.

Type of change process

The blue-print change process can be relatively short, at least in comparison with other ways of thinking. It is feasible to determine rationally and ahead of time when the change will be completed. The subject of the change (the client or project leader) and its object (the ones who undergo the change) are often different people or entities. The approach is rational (planning) and empirical (indicators). Think first (define and design) and then do (implement) is the maxim. Thinking and doing are sequential.

The foremost considerations of the blue-print changer are these: plan and organize first; use all possible expertise and do not let people's individual ideas and preferences interfere; and never lose sight of the intended result.

Red-print Thinking

Red-print thinking has its roots in the classic Hawthorn experiments (see Mayo, 1933; Roethlisberger, 1941). McGregor (1960) developed the tradition further. In recent years, 'Human Resources Management' has been a much discussed subject (see, among others, Schoemaker, 1994; Paauwe, 1995; Freytier & Paauwe, 1996). The intention of the red-print changer is to change the soft aspects of an organization, such as management style, competencies, cooperation.

The red-print school of thought contends that people change as a result of the deployment and adequate use of a set of HRM tools such as rewards, appraisals, career paths, structures, assessments, recruitments, reorganizations, out-placements, and promotions. It has to do with the development of competencies, of talents, and of getting the best out of people—an optimal synergy between the organization and its employees. People will do something or change if they get something back (the 'barter' principle).

The outcome of the change (the result) can, according to red-print thinking, be thought out beforehand, but it cannot be fully guaranteed because it is dependent on the response of the 'victims'; the desired outcome might change somewhat as a result. Monitoring takes place, but, for both ethical and political reasons, there is a limit to how forcefully it can be adjusted along the way. Compelling change is possible to a limited extent for the same reasons.

Type of change process

The red-print change process takes time. The subjects, the change agents, and the objects, those who are supposed to change, are different people but they do frequently interact. On the basis of intermediate results, the change agent can adjust the desired result. Management motivates and puts forward arguments for the change. They get up on a soap box, give speeches, and seduce people into embarking on a change made attractive. The HRM instruments try to make concrete what the desired behaviour is thought to be and add incentives and penalties to entice people to act accordingly.

The foremost consideration of the red-print change agent: the human factor plays an important role. People make changes happen if you guide them in the right direction and reward them for changing.

Green-print Thinking

Green-print thinking has its roots in action-learning theories (see, among others, Argyris & Schön, 1978; Kolb et al., 1991). It has been expanded enormously in the more recent thinking on 'learning organizations' (Senge, 1990; Swieringa & Wierdsma, 1990). Changing and learning are conceptually closely linked (see, among others, de Caluwé, 1997).

The outcome of green-print change is difficult to predict in this way of thinking because it depends, to a large degree, on the extent and the nature of what people learn, and this, in turn, depends on both their learning ability and the effectiveness of the learning environment itself. The process is characterized by setting up learning situations—preferably collective ones as these allow people to give and receive feedback as well as to experiment with more effective ways of acting. Change takes place as a result of people and organizations learning continuously. Monitoring is not meant to adjust the change in the direction of some predetermined outcome, but just to plan a follow-up that is in line with what the people involved regard as the most relevant learning goals. Compelling change is deemed counterproductive; green-print thinking is much more concerned with allowing and supporting people to take ownership of their learning.

Type of change process

The change process takes time: you cannot force learning. It is a fluctuating process of learning and unlearning, trial and error. Subject (change agent) and object (change victims) can be different people, but there is a great deal of interaction between them. They can even switch roles; the change agent is also always learning.

The management of the change is very limited in a directive sense. Motivating, facilitating feedback, supporting experimenting with new behaviour, structuring communication, setting up interactions, giving meaning, and learning, in the broadest sense of the word, are much-used interventions. Thinking and doing are tightly coupled, not sequential (as it is in blue-print thinking).

The foremost consideration of the change agent is this: motivate people to learn with each other and from each other in order to establish continuous learning in collective settings.

White-print Thinking

White-print thinking arose as a reaction to the deterministic, mechanistic, and linear world-view derived from Newton and Descartes. It is nourished by chaos thinking, network theory, and complexity theory, all of which are based on living and complex systems with limited predictability (see, among others, Bateson, 1984; Capra, 1996). Self-organization is a core concept. Stacey (1996) defines self-organization as 'The process by which people interact with one another within a system, according to their own codes of behavior, without there being an overall picture that makes clear what has to be done or how it is to be done.' The self-organization process encompasses the emergence of new structures and behavioural patterns through developmental, learning, and evolutionary processes. The system finds its own optimal dynamic balance (see, among others, Bicker Caarten, 1998).

In the white-print way of thinking, change is autonomous. '*Panta rhei*: everything is in motion'; 'The route is the refuge'; and Morgan's flux metaphor (1986) are all expressions of this view. People and organizations are in a constant state of change. The inner desires and strengths of people, both individually and as groups, are the decisive factors. Outside influence, whether from a change agent or a manager, can be of only limited effect and then only if this is welcomed by the ones who are changing it.

Type of change process

The concept of planned change is somewhat at odds with white-print thinking: planning, controlling, and managing the change are, to a great extent, irrelevant notions. Resistance is also an irrelevant concept.

It is assumed that no one can stop change from happening; it can only be aided or hindered. The opportunities to exert influence lie mainly in helping to clear obstacles and in challenging people, calling on their strengths and self-confidence. These opportunities in the relationship between the change agent and others are often spotted by these others rather than constructed by the change agent. They can request help, support, or coaching from the change agent and from each other. In a way white-print change agents catalyse the emergence of more white-print change agents.

The foremost consideration of the white-print change agent is: observe what is making things happen and change; supply meanings and perspectives, remove obstacles, get initiatives and explorations going, and empower people while giving them sufficient free rein. The belief that 'crisis provides opportunity' applies here.

Note: The above does NOT equal doing nothing or *laissez-faire*. On the contrary, it demands in-depth observation, analysis of underlying drivers, and often confronting interventions. Change agents must be capable of making sense out of complexity, often looking at historical patterns and psychological mechanisms. They will require quite a few theories about irrationalities in organizations and strong powers of observation to allow them to do so.

Some Examples

A few examples, shown in Table 10.2, serve to illustrate how the colours can be applied. The examples indicate, even though they are just simple exercises, how great the differences can be between the colours when it comes to aim/outcome, the change process, and the tools used. With these examples we try to show just how relevant it can be to understand the underlying concepts and ideas—the colours—behind someone's words in order to better understand each other and better communicate about change.

Ideals and Pitfalls

Each colour has its own ideals; that is, what change agents dream of for the long run. But each colour also has its pitfalls: situations or conditions when the approach is no longer effective or even becomes counterproductive.

In yellow-print thinking the ideal is that people focus on common interests and strive towards collective goals. The ideal is that people want and are able to weigh different interests and achieve common ground. In a way it is a very democratic ideal. Pitfalls include lose–lose situations such as destructive power struggles. Building castles in the air (allowing a 'false' consensus) is another pitfall, severing the link between the goals, means, and efforts.

The ideal in blue-print thinking is that the future is in our hands and we can construct it. Everything is possible and controllable and can be achieved by rational planning. The pitfall is to steamroller over people and their feelings and thus create resistance rather than commitment. This can be aggravated by the inclination to pay insufficient attention to 'irrational' aspects. Impatience is another pitfall: not granting others sufficient time to come on board.

The ideal in red-print thinking is searching for the optimal 'fit' between people and 'hardware', between the goals of the organization and those of the individual. It strives to make organizations 'more beautiful' and to inspire and care for those who work there. The pitfall can lie in the lack of concrete outcomes by 'sparing the rod' and avoiding conflicts. Red-print thinkers can be addicted to

Table 10.2 Example of a workshop, a mission, and knowledge management

	Setting up a workshop in order to	Formulating a mission to	Introducing knowledge management by
Yellow-print thinking	reach agreement with one another about aims or policy	lay out the results of negotiations	forming heterogeneous assignment teams organizing across disciplines
Blue-print thinking	have a plan of approach on paper as result of the workshop	have the best strategy clearly defined (to be used in external marketing of internal monitoring)	writing handbooks developing information systems doing empirical research
Red-print thinking	create more involvement have a good time together	get everyone on the same wavelength give words to what brings us together/create a 'family' feeling	introducing job rotation and sabbaticals management development programmes
Green-print thinking	learn from one another exchange viewpoints	enable a useful exchange of views explore different possibilities together	bringing people together in such a way that they learn from one another intervision and coaching
White-print thinking	expand our thinking arouse creative energy stimulate creative ideas	bring about an evolutionary leap transcend apparent contradictions	taking on challenges making new things possible catalysing new communities and networks

maintaining a good atmosphere. Also, HR systems can smother brilliant staff members as these never fit the neat competence profiles of a red-print thinker. It also ignores power in organizations, top-down as well as bottom-up.

The ideal of green-print thinking is a learning organization where learning is consciously and continuously applied. Everybody learns what they need to learn and come up with their own solutions to their own problems. The pitfall is that green-print thinkers can ignore the fact that not everybody is always willing or capable of learning. For instance, in situations that lack safety, such as power struggles or conflicts, people are not keen to participate. Also there can be a lack of 'hard' outcomes: an over-abundance of reflection can breed a lack of decisiveness and action.

In white-print thinking the ideal lies in spontaneous evolution, in "lucky" coincidence and people taking responsibility for their own lives and learning. What is more, there is a positive attitude towards conflict and crisis. The pitfall lies in the idealization of everything magically taking care of itself. This leads to injudicious acceptance of problems. Another pitfall is fashionably using 'white' ideas without grasping white thinking's essence, e.g. managers using the concept of self-steering teams to abdicate their own responsibilities. A final pitfall is having insufficient insight into the underlying patterns of an organization to confidently know what might bring life (back) into it.

New Colours and New Characteristics

Is this a complete overview? The colours do seem to cover most of the steady stream of experience, research, and publications that we are aware of. Nevertheless, the list is probably not complete. Recalling genocides in the Second World War, or in Rwanda or Kosovo, we realize that violence and repression

are also strategies; ones of manipulating and threatening people, of infusing hate and fear. We call this type of thinking about change 'steel-print'. It characterizes methods employed in organizations as well, and that it is effective is obviously still believed by quite a few people.

Besides steel-print, there might be still another way of thinking about change. Living, travelling, and working in India, we observed that people were more inclined than we were to say 'yes' to change while also leaving action more up to circumstances like the weather, people they met, the hand of God. If God wants it, the change will happen. People work hard, but rational planning is taken much less seriously than we are accustomed to. A person is considered only a small part in the timeless game (maya) of life. This might be a way of thinking about change that is little influenced by Western beliefs in progress, and it also appears to be effective: India, the largest democracy in the world, operates under its assumptions. We think that silver may be a fitting colour for this way of thinking.

In most of our consultancy work, we do not engage in steel or silver paradigms. These are not generally considered part of the professional repertoire. What we have found since we started working with the colour-print language is that people easily attribute lots of other characteristics to the colours more than the ones mentioned here and which are summarized in Table 10.3. These are characteristics like: output criteria, diagnostic models and questions, typical sayings, glossaries, bodies of literature, ways of communications, norms and values of change agents, the meaning attached to 'resistance to change', etc. We will address these in separate publications (see, e.g., de Caluwé & Vermaak, 2003b).

META-PARADIGMS

There is also a (meta-)paradigm behind the five-colour classification described here. The description of five ways of thinking emerges from a meta-paradigm that posits a need for distinctions in diversity and a search for professional insights and values based on these. Over the last few years several such insights have emerged (de Caluwé & Vermaak, 2003b):

1. We start to suspect that any strong colour dominance in organizations is unwanted. In order to survive in the long run, organizations seem to need qualities of all the colours. Organizations need to deal properly with power and different interests (yellow), must effectively and dependably get results and maintain organizational hygiene (blue), must take the irrational human being into account and insert care and perspective in organizational life (red), have to create spaces to learn and cooperate (green), and need to align themselves with the times they live in and the people they live with and innovate accordingly (white). The different colours have conflicting principles: that means that a balanced or sound organization has to cope with the paradoxes that result from these conflicting principles. This reinforces the need to diagnose organizations from the different coloured viewpoints in order to be aware of imbalances.
2. A foundational (colour) focus in terms of change strategy is needed, especially when problems are deeply rooted as different coloured approaches can interfere considerably with one another. For instance, trying to create a learning environment (green) while not keeping power games at bay (yellow) or down-playing the predictability of outcomes (blue) means that the learning is bound to be superficial. Each colour has its strong and weak points. The kind of organization, the issue at hand, the kind of resistance, the style of the change agents, the time pressure, and other circumstances are all factors that influence which change strategy, in terms of colour, can best make a difference. This is not to say that a change strategy has to be restricted to one colour, but it does imply that interferences between coloured actions should be taken into account when intervening in organizations. A relatively easy way of dealing with interferences is to space different colour interventions in time or have different people involved. More challenging is to maintain one constant underlying colour tenet while allowing for more superficial other coloured contributions. For instance, when restructuring a company (blue), HRM instruments can be of help in staffing the new structure. In such a case, blue will dominate and the red components help the blue restructuring

Table 10.3 The five colours and their concepts

	Yellow-print	Blue-print	Red-print	Green-print	White-print
Something changes when you	bring common interests together	think first and then act according to a plan	stimulate people in the right way	create settings for collective learning	create space for spontaneous evolution
in a	power game	rational process	exchange exercise	learning process	dynamic process
and create	a feasible solution, a win–win situation	the best solution, a brave new world	a motivating solution, the best 'fit'	a solution that people develop themselves	a solution that releases energy
Interventions such as	forming coalitions, changing top structures, policy-making	project management, strategic analysis, auditing	assessment and reward, social gatherings, situational leadership	training and coaching, open systems planning, gaming	open space meetings, self-steering teams, appreciative inquiry
by	facilitators who use their own power base	experts in the field	procedure experts who elicit involvement	facilitators who create settings for learning	personalities who use their being as instrument
who have	a good sense for power balances and mediation	analytical and planning skills	HRM knowledge and motivational skills	OD knowledge and feedback skills	an ability to discern and create new meanings
and focus on	positions and context	knowledge and results	procedures and working climate	the setting and communication	patterns and persons
Result is	partly unknown and shifting	described and guaranteed	outlined but not guaranteed	envisioned but not guaranteed	unpredictable on a practical level
safeguarded by	decision documents and power balances	benchmarking and ISO systems	HRM systems	a learning organization	self-management
The pitfalls lie in	dreaming and lose–lose situation	ignoring external and irrational aspects	ignoring power and smothering brilliance	excluding no one and lack of action	superficial understanding and *laissez-faire*

succeed and stay a little more superficial as a result (limited to HRM instruments rather than creating a climate of care).

3. The colour of the change agent should match the change effort: incongruence frustrates change. It makes little sense to embark on a yellow endeavour with an analytical expert who strives for the best solutions (blue) rather than what is feasible given the balance of power. While change agents might be able to at least intellectually grasp that all colours are equal, when it comes down to it, most change agents have more narrowly defined beliefs/orientations and these should match their role in order for them to be believable. This is not to say that change agents can be branded in single colours and remain as they are over the years. Change agents may be able to handle different approaches to change but not to their full potential. They may change colour but take many years to do so as each colour brings with it a whole body of knowledge with many interventions, competences, diagnostic viewpoints, etc. Luckily for some colours, it is even good role modelling in change processes to profess one-sidedness, in particular, green and white. It provides space for other people's imperfections and can enhance trust and establish rapport.
4. Finally, we posit that dialogues in organizations based on a multi-paradigm perspective (such as the colours) enhances organizational vitality. 'The difficulty for change is not in the development of new ideas, but in escaping the old ideas, that determine our thinking' (Wierdsma, 2001). Seeing (too) many things through green glasses and applying green interventions will give a lot of reflection but a lack of action, results, and consensus. Moreover, organizational change is a collective effort and, more often than not, involves people with multiple perspectives on organizational life and multiple definitions of reality. Instead of narrowing participation to reach easy consensus on issues, the inclusion of multiple perspectives can create not only the kind of richness that does justice to the complexities of the social systems but also the kind of ownership that is instrumental in addressing such complexities. When problems are simple, single-minded viewpoints might suffice (e.g. building a house with a blue paradigm only). But for ambiguous problems involving people with many different backgrounds, understanding and intervening in organizations are best based on collectively taking multiple realities and corresponding paradoxes into account.

CONCLUSION

Green and white approaches are currently favoured in words, but not in actions. Blue approaches in particular predominate as many change agents still strive for change to be effective, efficient, results-oriented, and transparent which are criteria that only blue approaches adhere the highest value too. Green approaches value learning and reflection and skill building higher, while red approaches love cohesion, improved cooperation, pride, and a good atmosphere. We think that a rise in popularity of the lesser-used paradigms, green and white, might be justified given the rise of professionalism in organizations, the speed of innovations, and the need for leadership in network organizations.

This advocacy on our part is not meant to replace one colour imbalance with another. Nor did we describe theories about why change does not work to explain irrationalities away. Both are an effort on our part to acknowledge complexity and multiplicity of organizational life as well as a way to come to grips with it. Organizations do not present a neat and orderly universe to us. Changes happen, planned and unplanned. Changes follow each other and take place concurrently. They compete with one another, but may also support each other. They happen at many levels at the same time, producing both desirable and undesirable results. Changes fail because of resistance, but resistance can also initiate change. Resistance can be a form of energy, grumbling can be an expression of vitality, and pocket vetoes can be a means of self-protection and survival. In the end, it is these dialectic tensions and complexities that may inspire change agents to keep wondering and wandering.

REFERENCES

Argyris, C. & Schön, D.A. (1978) *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley.

Bateson, G. (1984) *Het verbindend patroon*. Amsterdam: Bert Bakker.

Bicker Caarten, A. (1998) *Chaos en stress: Stressoren die op kunnen treden bij spontane organisatieveranderingprocessen bekeken vanuit de chaostheorie*, Scriptie vakgroep Arbeids- en Organisatiepsychologie. Amsterdam: Universiteit van Amsterdam.

Bohm, D. (1992) *Wholeness and the Implicate Order*. London: Ark Paperbacks.

Capra, F. (1996) *Het levensweb*. Utrecht: Kosmos-Z&K.

Cornelissen, V. (1999) Hoe til ik mezelf aan mijn schoenveters op? Doctoral thesis, University of Tilburg.

Cummings, T.G. & Worley, C.G. (1993) *Organization Development and Change*. Minneapolis, MN: West Publishing.

De Caluwé, L. (1997) *Veranderen moet je leren: een evaluatiestudie naar de opzet en effecten van een grootscheepse cultuurinterventie met behulp van een spelsimulatie*. Den Haag: Delwel; Amersfoort: Twynstra Gudde.

De Caluwé, L., Geurts, J., Buis, D. & Stoppelenburg, A. (2000) *Changing Organizations with Gaming/Simulation*. Elsevier bedrijfsinformatie bv 's-Gravenhage/Amersfoort: Twynstra Gudde.

De Caluwé, L. & Vermaak, H. (2003a) *Learning to Change: A Guide for Organizational Change Agents*. Thousand Oaks, CA: Sage.

De Caluwé, L. & Vermaak, H. (forthcoming, 2003b) *Transformational Conversations about Change*.

De Leeuw, A.C.J. (1997) Bureaucratische zegeningen. *M&O*, **1**, 92–11.

Feltmann, C.E. (1993) Help! Een manager! Waar is de professional??? *TAC*, **7/8**, 16–23.

French, W.L. & Bell, C.H. (1984) *Organizational Development: Behavioural Science Interventions for Organization Improvement* (3rd edn). Englewood Cliffs, NJ: Prentice Hall.

Fritz, R. (1996) *Corporate Tides*. San Francisco: Berrett-Koehler.

Fruytier, B. & Paauwe, J. (1996) Competentie-ontwikkeling in kennisintensieve organisaties. *M&O*, **6**, 424–529.

Greiner, L. & Schein, V. (1988) *Power and Organization Development: Mobilizing Power to Implement Change*. Reading, MA: Addison-Wesley.

Hammer, M. & Champy, J. (1993) *Reengineering the Corporation: A Manifesto for Business Revolution*. London: Nicholas Brealey.

Hanson, E.M. (1996) *Educational Administration and Organizational Behavior*. Boston: Allyn & Bacon.

Kluytmans, F. (1994) Organisatie-opvattingen door de jaren heen. In J. Gorichhauzen, A. Kampermann & F. Kluytmans (eds) *Interventies bij organisatieverandering* (pp. 21–38). Deventer: Kluwer Bedrijfswetenschappen.

Knip, H. (1981) *Organisatiestudies in het onderwijs*. Utrecht: Drukkerij Elinkwijk.

Koestler, A. (1967) *The Ghost in the Machine*. London: Hutchinson.

Kolb, D., Rubbin, I.M. & Osland, J.S. (1991) *Organization Behaviour: An Experiential Approach*. Englewood Cliffs, NJ: Prentice Hall.

Kor, R. & Wijsen, G. (2000) *50 Checklists for Project and Programme Managers*. Aldershot/Brookfield: Gower.

Loman, J.B. (1998) *Verkenning Toepassingsmogelijkheden Chaos-Theorie*. Amersfoort: Twynstra Gudde (internal publication).

Lorentz, E.N. (1963) Deterministic non-periodic flow. *Journal of the Atmospheric Sciences*, **20**, 130–141.

Mayo, E. (1933) *The Human Problems of an Industrial Civilization*. New York: Macmillan.

McGregor, D. (1960) *The Human Side of Enterprise*. New York: McGraw-Hill.

Morgan, G. (1986) *Images of Organizations*. Beverly Hills, CA: Sage.

Paauwe, J. (1995) Kernvraagstukken op het gebied van strategische HRM in Nederland. *M&O*, **5**, 369–389.

Parsons, T. (1977) *Social Systems and the Evolution of Action Theory*. New York: The Free Press.

Parsons, T. (1978) *Action Theory and the Human Condition*. New York: The Free Press.

Pfeffer, J. (1981) *Power in Organizations*. London: Pitman.

Prigogine, I. (1985) *Orde uit chaos*. Amsterdam: Bert Bakker.
Roethlisberger, F.J. (1941) *Management and Morale*. Cambridge, MA: Harvard University Press.
Roethlisberger, F.J. & Dickson, W.J. (1939) *Management and the Worker*. Cambridge, MA: Harvard University Press.
Schoemaker, M.J.R. (1994) *Managen van mensen en prestaties: Personeelsmanagement in moderne organisaties*. Deventer: Kluwer Bedrijfswetenschappen.
Senge, P.M. (1990) *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday/Currency.
Stacey, R.D. (1996) *Complexity and Creativity in Organizations*. San Francisco: Berrett-Koehler.
Swieringa, J. & Wierdsma, A.F.M. (1990) *Op weg naar een lerende organisatie*. Groningen: Wolters Noordhoff.
Taylor, F.W. (1913) *The Principles of Scientific Management*. New York: Harper & Row.
Van Delden, P. (1995) *Professionals: Kwaliteit van het Beroep*. Amsterdam: Contact.
Verzaak, H. (1997) Men zegt dat professionals niet te managen zijn. *Nijenrode Management Review*, **7**, 12–27.
Verzaak, H. & Weggeman, M. (1999) Conspiring fruitfully with professionals: new management roles for professional organizations. *Management Decision*, **37**(1), 29–44.
Weggeman, M. (1997) *Leidinggeven aan professionals*. Deventer: Kluwer Academic Publishers.
Weick, K.E. (1969) *The Social Psychology of Organizing*. Reading, MA: Addison-Wesley.
Weick, K.E. (1976) Educational organizations as loosely coupled systems. *Administrative Science Quarterly*, **1**, 1–19.
Wierdsma, A.F.M. (2001) *Leidinggeven aan co-creërend vermogen*. Breukelen: Nijenrode University.
Wijnen, G., Renes, W. & Storm, P. (1988) *Projectmatig werken*. Utrecht: Spectrum.