Introduction

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More than 70 per cent of the change programmes in organizations either stall prematurely or fail to achieve their intended result. Goals are not achieved, policies are not implemented, customers do not experience improvement in service and quality, and employees, supervisory staff, and middle management are confused by all the change efforts. In the USA, by far the majority of the attempts to redesign business processes turn out to be in vain (Bashein et al., 1994). The development of new strategies also runs aground in 75 per cent of cases (Beer et al., 1990). A study by Pettigrew (1987, 1988) in the UK showed that many change programmes, such as total quality management, business process redesign, and empowerment, are unsuccessful. A study of change processes in the Netherlands showed that more than 70 per cent of the change programmes lead to poor results (Boonstra, 2000).

Far-reaching organizational change programmes, such as strategic renewal, privatization, outsourcing, mergers, redesign of business processes, total quality management, and empowerment affect the patterns of collaboration at work and the relations between actors in and around the organization. People must learn to deal with these changes in their daily work. In many such change processes, social and behavioural scientists and practitioners try to guide the changes (Beer, 1980; Pettigrew et al., 1994).

This chapter asks why many change programmes stall and what we can do about it. The aim of this chapter is to provide an overall picture of the dynamics of organizational change and learning, and the contemporary challenges that face the discipline of organizational change management.

The srtucture of the chapter is as follows. In the beginning, it is argued that many explanations why change programmes fail concentrate too much on organizational and psychological aspects and entities, and pay too little attention to the change process itself. Next, the underlying reasons why change programmes stall are sought in the behaviour of different key players during the change processes and in the assumptions regarding organizational change on which the behaviour of these actors is based. Insights from planned change and organizational development are discussed, and change strategies are elaborated. Then, an alternative is outlined in which the dynamics in organizing and change are looked upon as a source of renewal in the processes of self-organization and organizational sense-making. Finally, attention turns to current topics that are relevant to the management of change and learning, and to methodologies for developing experience and knowledge of these topics.

WHY ORGANIZATIONAL CHANGE IS DIFFICULT

Many of the explanations given why organizational change programmes fail pay insufficient attention to the complexity of change processes. Five points of view are described in which the stumbling blocks for change are explained as:

- inadequate policy-making and strategic management;
- existing organizational structures;
- power and politics in organizations;

- organizational cultures;
- individual uncertainties and psychological resistance to change.

POLICY-MAKING AND STRATEGIC MANAGEMENT

The policy-making and strategic management perspective seeks the reason for policy failure in problems with implementation or in lack of sufficient support for the policy measures. An almost classic theme in public administration is the way in which, during the implementation process, policy formulation requirements are merged with the constraints of the administrative organizations; these are often potentially contradictory. Here, it is noteworthy that theories of policy-making pay only limited attention to theories of organizational change and renewal. The content of the policy is often blamed for policy failure, as being inadequately developed, or giving too little direction, or being unfeasible. Organizations responsible for implementing the policy are unable to deal effectively with the policy as it is formulated.

In my opinion, this explanation is too limited. The failure of many policies is due just as much to the nature and organization of the policy-making process itself. According to Yanov (1996), objective information is rarely available during the policy-making process. The assessment of problems and the evaluation of solutions are subjective processes, where the standards and values of the parties involved differ. Furthermore, a problem changes in the course of time because it is related to other issues and changing opinions. For this reason, Hajer (1995) suggests a process approach. This means that the parties concerned reach agreements beforehand about how the decision-making process will be implemented. According to both these authors, a carefully formulated process of policy development generates content and support for change.

Within organizations, the strategy realized often differs significantly from the strategy intended. Mintzberg (1988) ascribes this to technical and political factors and the adjustment of the strategic policy by those implementing it. Beer et al. (1990) ascribe the failure to realize strategic policy to conflicting strategic priorities, ineffective top management, poor vertical communication, and insufficient interdisciplinary cooperation. They suggest a departure from the traditional command-and-control managerial style and propose that all members of the organization be involved in reaching decisions and coordinating activities. These positions point to the structural perspective of why organizational change is a difficult process.

ORGANIZATIONAL STRUCTURES AND THE DIVISION OF LABOUR

The structural perspective suggests that existing technologies and the division of labour are the main reasons for the difficulties in bringing about organizational change. The classic hierarchical organization with a high degree of task specialization leads to a fragmentary view of the various functions within the organization and prevents a common perspective on why change is needed. This results in resorting to *ad hoc* solutions using tried and tested measures. In the past, many organizations have been successful in improving efficiency through task specialization and control of the labour process, which makes it difficult for them to operate under other organizing principles (Mintzberg, 1979). Organizational renewal provides a new perspective on organizing, but this new logic on organizing cannot be understood on the basis of the dominant logic. As a result, the change process founders because of incomprehension and fixed routines in technology and human behaviour.

Making the break from task specialization through redesign is offered as the source of solutions to the problems found in how organizations operate and introduce change. Examples are business process redesign and the sociotechnical design of work processes. To redesign successfully, considerable attention has been given in recent years to optimizing the design process, the steps required to do this, the role of the expert, and the leadership qualities of management. The perspective of power and

discipline in organizations is linked to the structural perspective on the obstacles to change when the hierarchy and the division of labour are seen as mechanisms that produce power (Braverman, 1974), or when the division of labour is regarded as an outcome of power processes (Hardy & Clegg, 1996).

POWER, POLITICS, AND DISCIPLINE

The perspective of power, politics, and discipline attributes the difficulty in realizing organizational change to the existing power relationships and the agencies, powers, and networks that want to maintain these relationships (Mintzberg, 1983). Different interest groups then concentrate on the preservation of their own interests, goals, and positions. Change casts doubt on stability and the institutionalization of power in structures, rules, relations, ideologies, and processes of meaning (Hardy & Clegg, 1996). Stability stems from the interests with previously made decisions concerning the strategy, the organization, and the balance of power. The existing task procedures and balance of power are assumed to be the reality. In addition, those who already possess power have the possibility of extending their power by supporting certain actions, appointing managerial and executive staff, and accumulating contacts which can be used in the future to gain more power and to influence the decision-making process (Greiner & Schein, 1988).

From this point of view, some propose the use of power by management and consultants in order to break through paralysing power structures. They look upon power as a system of authority, ideology, and expertise. I question this concept because such actions often lead to a struggle for power and divert energy from the change process. In the power perspective on change, a manager often tries to force the desired changes and secure their implementation. From their position at the top of the organization, managers present content-related solutions, adjust organizational structures, and guide the change process. The progress of the change process is controlled and adjusted using monitoring systems. This approach can lead to willingness to change if the members of the organization are convinced that the change is necessary and if they know nothing about alternative strategies for change. However, the exercise of power often stirs up opposition and leads to increasing resistance and problems in realizing the changes.

ORGANIZATIONAL CULTURES

The cultural perspective attributes resistance to change to the prevailing standards and values within the organization. These limit the ability of people to choose between alternative behaviours and hence the ability of members of the organization to change (Schein, 1992; Cummings & Worley, 2001). This point of view is in agreement with the assumption that ideas, shared values, and perspectives of reality form the basis of organizations. Social relationships have their own structures and cultures, based on the rules, habits, institutions, consultation styles, language, communication, use of symbols, and definitions of reality that groups use as starting points for mutual interaction. In this perspective, managers have particular difficulty in changing their standards and values because they have come to see their own way of behaving as appropriate. Managers then act as the guardians of the organization (Schein, 1992).

Solutions to effect changes are sought in broad cultural programmes and training programmes for managers. The focus of such programmes is to discuss and provide insights into the existing standards and values, after which new behaviour patterns can be learned through training. The underlying idea is that the culture of an organization can be deliberately and systematically changed and that by changing cultural values and the perspectives of reality, the behaviour of people in the organization can also be indirectly affected. From the cultural perspective, the aim is often to actively involve individuals in the change process. Several forms of intervention have been proposed in recent years for this purpose, such as game simulations (de Caluwé & Vermaak, 2003), large-scale interventions (Bunker & Alban, 1997),

and broad system interventions and conference methods (Weisbord, 1992; Jacobs, 1994). I distrust such interventions when they are used by people in power and their consultants to implement preconceived goals. Conferences and game simulations then become nothing but a way to ease in planned change.

UNCERTAINTY AND RESISTANCE TO CHANGE

The individual psychological perspective attributes the problems encountered in change processes primarily to people's desire for certainty and stability (Heller, 2003). This point of view emphasizes fear of the unknown, a lack of confidence in other people, and the individual need for safety and stability. Changes in work procedures can lead to loss of identity, decreased work satisfaction, and uncertainty as to whether the new task can be carried out. The lack of a personal grasp of the events and negative experiences with previous changes can also lead to an attitude of indifference by those involved. Resistance to change by individuals and small groups has also been explained on the basis of theories of social categorization (Tajfel, 1982). Particularly in times of uncertainty, groups form and stereotyping occurs which quickly gives rise to misunderstanding and distrust between groups. This does not make the change process any easier.

Solutions to the difficulties encountered during change are looked for in methods for diagnosing and dealing with resistance. In order to make change processes acceptable, interventions have been developed at individual and group levels and more recently also at the organizational level (Bunker & Alban, 1997; French & Bell, 1998; Cummings & Worley, 2001). These interventions are intended to reduce uncertainty through teaching, by providing good communication about the change, and by involving people in the change. At the group level, the emphasis is on negotiating, conflict management, and counselling on how to work as a team (Mastenbroek, 2000). This point of view emphasizes more attention for interventions during the process in order to realize changes. I question the value of many of these interventions because they carry with them the inherent danger of manipulation and rarely contribute to lasting changes.

PROCESSES OF ORGANIZATIONAL CHANGE

The perspectives described thus far use existing policy processes and organizational processes as starting points. Obstacles to change are sought in the nature of the policy-making process, the characteristics of the organization, the power processes, the organizational culture, or the resistance of groups and individuals. These perspectives can overlap and reinforce each other. In this way, a high degree of division of labour often leads to cultural differences between departments, attempts to hold on to positions, and tension between management and staff. This makes individuals uncertain, especially if the problems are not clearly defined and open to different interpretations.

It is noteworthy that many managers and consultants forget to look at themselves and their own behaviour when searching for the reasons for obstacles to organizational change. They often assume that the reason lies in the organizational context and approach the problems of change from an entity perspective. My perspective is that problems with change should be sought more in how the change process is approached than in the existing organizational context. This is a good reason for taking a deeper look at the management of the change process and examining the psychological management of change.

THE MANAGEMENT OF CHANGE

From the management perspective, change is a process of guidance and adjustment aimed at achieving the goals for change. This perspective is linked to insights and theories on planned change and

organizational development. The key to this approach is that businesses try to anticipate and take advantage of developments in their surroundings.

PLANNED CHANGE

Planned change is seen as a conscious and deliberate effort to adapt and improve the operations of a human system through the utilization of scientific knowledge. It concerns how change is created, implemented, evaluated, and maintained (Bennis et al., 1979). In order to achieve adaptations and improvements, managers and consultants take a rational approach: they analyse the surroundings, formulate goals, develop a strategy, and then implement the change. This approach is based on the assumption that the organization is in a state of stable equilibrium and that the relationship between the organization and its surroundings must be kept in balance. If the surroundings change, then the organization must move from equilibrium state A to a new equilibrium state B in which the organization will again be able to fulfil the requirements of its surroundings. The change process can be planned and controlled by means of feedback mechanisms and interventions.

CASE STUDY: PLANNED CHANGE IN THE INTRODUCTION OF THE EURO

All organizations in the 12 euro countries had to adapt their financial and information systems, and to be cash-compatible with the introduction of euro banknotes and coins. The problem was well known, as well as the solutions. Because many companies faced the same problem, the approach could be routine work and seen as a compliance-based exercise.

An international biscuit firm started the adaptive change project in 2000 for conversion to the euro. The firm is a major player in Western Europe and has several brands of biscuits and snacks in Holland, Belgium, the UK, France, Germany, Spain, and Portugal, with 16 production sites across Europe. With 9000 employees, its manufacturing capacity is 1.1 million tonnes of biscuit and snack products. The customers of the biscuit firm are mainly large wholesale and retail chains, mostly small and medium-sized enterprises. As this is mainly a business-to-business relationship, there are significant implications for the euro conversion project, such as the need for dual currency.

The company's overall euro project was directed by a steering group which focused on milestones, strategy, and progress. The steering group consisted of the Finance Director, the Marketing and Sales Director, an executive from the Information Systems Department, and an external senior consultant with experience in the adaptation of financial and information systems to the euro. The consultant worked for an international firm offering accountancy and consultancy services. This consultancy firm had developed a standardized programme for euro conversion with strictly described steps, procedures, and milestones. The steering group and the lower board accepted the recommendations of the external consultant to proceed with detailed planning and implementation of a project with the aim of switching over all systems and processes involved by September 2001 at the latest. All companies had to be cash-compatible by January 2002. The information systems were largely AS400-based and most European applications were run centrally from headquarters. The consultancy firm offered a technical conversion programme to convert the accounting and to deal with dual currency. The programme was supported by a project team of eight. The project leader had a very good record in technological change and accountancy and was assisted by four external consultants and three people from the Financial, IT, and Marketing and Sales Departments. The euro project team was primarily supported by work teams and national champions, creating a core team of some 120 people. National champions were responsible for the local planning and delivery of their own euro plans at the local board level. At the national level, support was provided by external consultants from the consultancy firm.

> The project team produced detailed plans at the central and local levels. The first step was to analyse existing processes and systems and to test process changes. The second step focused on the development and implementation of plans to reach a point where all processes, accounting, internal trading, and reporting were carried out in euros. The third step was to give support to the operating units with a helpdesk through which the company could resolve queries on an as-needed basis. The fourth step was to be ready to adopt customer practices and prepare for a possible demand from customers and suppliers. It was also seen as important to manage customer expectations and processes, regarding the use of one currency for agreeing prices and using on invoices.
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> Nationally, more detailed plans were produced and all milestones were logged. The consultancy firm provided a set of one-off utility programmes to handle conversion to the euro.
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> The biscuit firm was adequately prepared for the conversion of national currencies to the euro. One critical success factor was sufficient resources, such as the budget, and the specialists in information systems and accountancy, computers, and technical systems. Other success factors were strict planning, commitment from the board for the plan and use of resources, establishment of a dedicated project structure with project champions, and external adviser support available on all levels.

Planned change is a relatively programmatic approach. This approach requires the ability to predict and control developments. To be able to predict developments, an eye must be kept on relationships between causes and effects over a long period of time. The desire to predict and reduce uncertainties accompanies an effort to gain control.

Planned change came about in a period when two idea systems in science opposed each other: the law of non-intervention, based on the doctrine of *laissez-faire*, and the law of radical intervention, with emphasis on conflict and class struggle (Burrell, 1996). This debate between no change and radical change also involved the methods employed in controlling and directing the forces of change. An important objective of planned change in this early period was to develop a method that used social technology self-consciously and experimentally to help solve the problems of people and societies. Another aim was to bridge the gap between a substantial body of theory of social action and a rich body of practice of social change in human systems, as well as to integrate the principles of theory and practice. The point was to develop new knowledge regarding changes in human systems and to test this in practice. The first publications had a broad orientation and covered a great range of topics, such as the use of scientific knowledge, the role of experts, change strategies, collaboration and conflict, change methodology and interventions, resistance to change, and ethical dilemmas of the change agent (Bennis et al., 1979). In the course of time, the approach was directed more and more at the development of an expert-driven methodology where change agents initiate and guide changes with the aid of social theories and behavioural knowledge.

In planned change, the changes are initiated, guided, and controlled by top management (Boonstra, 1997). Experts play an important role in problem analysis and in the guidance and implementation of changes. Steering groups and project teams support and execute the change project. The approach is solution-oriented and decision-making is mostly highly structured and formalized and greatly influenced by top management. Decisions are made based largely on economic and technical arguments. The method of change is based on formal models in order to reduce the complexity of the organization. Generally valid rules and uniform work procedures are adhered to. The change process usually has a linear structure with a clear beginning and end and with strict standards and planning. The approach often begins by setting abstract goals, and attention is given particularly to the desired output from the organization, the formal transformation process, and the information process coupled to it. Little attention is given to increasing the learning capacity within the organization. It is difficult to enlist the participation of the people in the organization because existing work procedures are consciously pushed aside. Powerful, coercive, and expert strategies are generally followed in planned change (Boonstra & Bennebroek Gravenhorst, 1998).

Examples of standard approaches to planned change are Business Process Redesign, Management by Objectives, Total Quality Management, Lean Production, ISO Certification, Team-based Organizations, Time-based Competition, Benchmarking, and the Balanced Scorecard. Many of these standard approaches ignore cultural aspects of change and invite resistance. Mostly, these programmes do not contribute to the performance of the organization or of the people working in the organization.

Planned change may be useful in stable and predictable situations where the problems are unambiguous. It is then a question of incremental and first-order change, in which familiar problems are solved in an existing context. Improvements are often logical adjustments to normal operations. First-order changes focus on the improvement of the added value in operations. In the context of behavioural science, this often means increased attention to human needs and values as well. Improvements can be realized through technical solutions and changes in the structure. The consultant plays the role of the expert who applies his or her knowledge in a goal-oriented way to bring about improvements. This is a useful approach in the case of readily definable problems that are not too complex and do not involve too many people. However, many changes do not satisfy these conditions. If planned change is, nevertheless, chosen in the case of complex problems in structure and culture, for example, then it is understandable that managers and consultants attribute the obstacles to change to rigid structures and cultures and to political behaviour. These are precisely the aspects that they have ignored in their approach.

I find it intriguing that planned change is the approach chosen in the majority of businesses, even though research and practice have shown that such an approach has problems in more than three-quarters of all cases (Boonstra, 1997, 2000). There must be thousands of plans lying in desk drawers that have never been implemented, or have had no effect on the real key processes in the organization. Planned change often leads to a cascade of change projects that tumble over each other because the previous changes have had too little effect, and starting a new project seemed the only thing to do. The result is confusion and uncertainty among the parties involved, lack of clarity as to the course of the organization, and decreased motivation. And if people in the organization, who are not involved with customers or their own work, then concentrate on carrying out the primary process and therefore block any change, they are accused of being resistant to change and are bombarded with implementation programmes. In this context, it is not surprising that some consultancy firms have come to see implementation as their profession. What they actually do is preserve the distinction between problems, solutions, and the activities of those involved.

ORGANIZATIONAL DEVELOPMENT

Various authors have proposed a developmental approach in situations where the problems are vague, where there are several perspectives on the problems and solutions, and where the direction of change is not yet completely clear (Boonstra, 2000; Cummings & Worley, 2001). Organizational development is defined as a systematic process for applying behavioural science principles and practices in organizations to increase individual and organizational effectiveness (French & Bell, 1998: 1). In their view, the change process is initiated and supported by top management. They see an important role for consultants who support the change process by applying theories and methods from social and behavioural science. In Chapter 1 of this volume, Cummings states that organizational development applies behavioural-science knowledge and practices to help organizations change themselves to achieve greater effectiveness. It seeks to improve how organizations relate to their external environments and function internally to attain high performance and quality of work life.

Organizational development has emerged principally from the theory and practice of behavioural science, especially in the fields of social psychology and group dynamics, and work and organizational psychology. An important influence was the Research Center for Group Dynamics in the USA. This centre conducted research on group dynamics and change processes and applied behavioural science to the development of group training programmes in which participants learn from their own interactions

with the evolving dynamics. It developed interventions at the interpersonal, group, and intergroup levels, such as team building, conflict handling, leadership, and survey feedback (Beer & Walton, 1987). Survey feedback is a kind of action research, and consists of data gathering from the client group, data feedback to the client group, data exploration and action planning by the client group, and actions to realize improvements. The development of theory and practice is stimulated by practitioners working in organizations following the principles and methodology of organizational development.

CASE STUDY: ORGANIZATIONAL DEVELOPMENT AND TRANSITION IN FINANCIAL SERVICES

A newly appointed Chief Executive Officer of a national division of an international re-insurance company is uncertain about the future of his business. The organization is performing very well, is the market leader in re-insurance, and has a very good reputation for service and product innovation. Almost all the insurance companies in the national market are business partners of this re-insurance company. The company provides a full service concept, consisting of re-insurance, administration, medical assessments, product innovation, risk management, and investment banking and has a staff of 140.

Although his organization is performing very well, the CEO feels that it is not well prepared for the future. His own observations during the first months of his appointment indicate that management is not well developed, business processes are inefficient, and the organizational culture is patriarchal. He starts a process for organizational development with the help of an external consultant and members of his organization. He wants to improve his organization in a change process while it is still performing very well, and wants to make the transition to an innovative, flexible, and profitable organization based on self-managed teams and highly motivated people.

To support and coordinate the change process, a task force of seven is established, consisting of managers and employees. The task force is facilitated by an external adviser and reports directly to the board of directors.

The change process starts by studying documents and undertaking interviews to understand the history and market position of the organization, to get a feel for earlier processes of change and innovation, and to get an idea of the relationships between business strategy, management, business processes, the organizational culture, technological systems, and human resource management. After the orientation phase, a collaborative diagnosis takes place in which the management team, line managers, and all employees examine the situation of their organization. The diagnosis shows that problems are related to an unclear strategic mission, an inflexible structure and information systems, fragmented business processes, a limited degree of entrepreneurship in management, and lagging human resources management. Performance is still very good, thanks to the motivation of employees, a client-oriented culture, strong internal collaboration, and a huge level of experience and knowledge in the organization.

For each of the observed and shared problems, a general direction for improvement is worked out. Exploring new directions and solutions starts with a conference attended by almost all members of the organization. Subsequently, so-called theme groups are formed to discuss the proposed solutions. Among other things, this leads to profound change in the business processes, the technological systems, and the structure of the organization. The new organization is based on teamwork for specific business partners. During the change process, which took less than a year, the development of management and leadership was incorporated into the process, and a new strategy for human resources was developed. The performance of the organization thus became even stronger in respect to customer satisfaction, work satisfaction, and financial results.

Critical success factors in this change process were: understanding that customers and clients set higher standards for products and services; understanding that managers act as supporters and

agents of the necessary changes; giving attention to changes in the style of management through specific support and training; ensuring participation of all organizational members in the change process; providing open communication to exchange ideas and information; openly consulting on solutions and alternatives; cooperating in the development of solutions; and providing feedback of information and achievements to further learning.

In general, a process of organizational development starts with an analysis by all parties concerned of problems and possible solutions. The changes are realized gradually, and the members of the organization are involved in all phases of the change process. Experts provide support by contributing their experience of change processes and by facilitating the change process. The procedures and methods are highly dependent on the course of the change process. A coordinating and guiding framework and guidance of the process by managers and process experts are often necessary to accomplish the changes.

The approach of organizational development is reasonably effective if the problem is to realize improvements within an existing context or if there are non-routine problems which require custom-made solutions. Attention is given to changes in structure, culture, and individual behaviour. The role of the change agent is that of a facilitator who, in the course of the change process, regularly tries to find solutions to the identified problems, together with the parties concerned, and who guides the implementation of the changes. These are frequently fundamental or second-order changes. Following a second-order change, the new state of affairs can have an entirely different nature from the old state of affairs. There is a transition to a known new state over a period of time. Second-order changes focus on renewal and innovation. Once the organization's leaders and change agents have assessed the existing needs and opportunities, they develop a more desirable future state. To achieve this new state, the old way of working must be set aside and the organization must pass through a period of transition when it is not yet out of the old and not yet fully in the new. During the course of the change process, the aspects that inhibit this transition are examined, and the change agents and consultants try to eliminate these obstacles by means of interventions. Often, the transition phase is managed by two parallel structures, one that oversees the ongoing operations and one that manages the changes. Over the years, a large number of intervention techniques have been developed from the behavioural sciences that may be used in organizational development. Methods have been developed for individual guidance and training, team development, conflict management, collaboration, changes in structure and culture, strategic change, problem-solving in organizational networks, search conferences to create new futures, and innovation.

Organizational development is also based to a great extent on the basic principles of planned change. In many cases, a phased structure is introduced and interventions are carried out in order to facilitate the change process. Because the course of a change process is often capricious and unpredictable, it is necessary to monitor the course of the process carefully and to intervene when necessary. Many practitioners base their work more or less implicitly on such a perspective on change, and formulate prerequisites for successful change on the basis of their experience. Although the developmental approach is indisputably effective in the realization of changes, there is a danger that the combination of a developmental approach with the provision of a framework for change may lead to a paternalistic approach that carries within it the danger of manipulation. The consultant then becomes a social engineer who directs the change process and seduces people to take part in the process.

PLANNED CHANGE, ORGANIZATIONAL DEVELOPMENT, AND INTERACTIVE LEARNING

Many change processes in organizations encounter difficulties. The reasons for this are usually sought in the nature of the strategy, the structure of the organization, the balance of power, individual psychological factors, and the culture of the organization. It is noteworthy that the obstacles to change

are usually sought in the existing organization, and that the problems connected with the change techniques themselves are seldom considered. In my opinion, it is precisely the approach to the change process that determines the success or failure of the changes (Boonstra & Vink, 1996). This means that a closer examination of the psychological management of change is highly appropriate.

Planned change may be suitable if one is faced with technical and instrumental aspects in which the problems and solutions are known. These are *first-order* improvements. Social and behavioural scientists try to achieve results with the aid of standard techniques. Using this procedure, it is understandable that the reasons for resistance to change are sought in the obstinacy of structure and culture, unclear strategies, or other aspects that are ignored in the change project.

When the changes to be made are far-reaching, the problems are not entirely unambiguous but still recognizable, and there is some idea as to the direction in which the solutions must be sought, then organizational development is a more successful approach than planned change. In organizational development, suitable solutions for shared problems are generally looked for, involving the members of the organization. In this process, the organization undergoes a transition from a stable situation A to a stable situation B. These are *second-order* changes in which the organization responds to the demands made by the environment. From this point of view, it is understandable that the problems encountered during change are connected with complexity and turbulence in the organization and its surroundings. Changes in the environment lead to instability and provide the motive to create a new equilibrium situation between the organization and the environment. To the extent that there is more turbulence and complexity in the environment, it becomes more difficult to maintain this equilibrium and the realization of change becomes problematic.
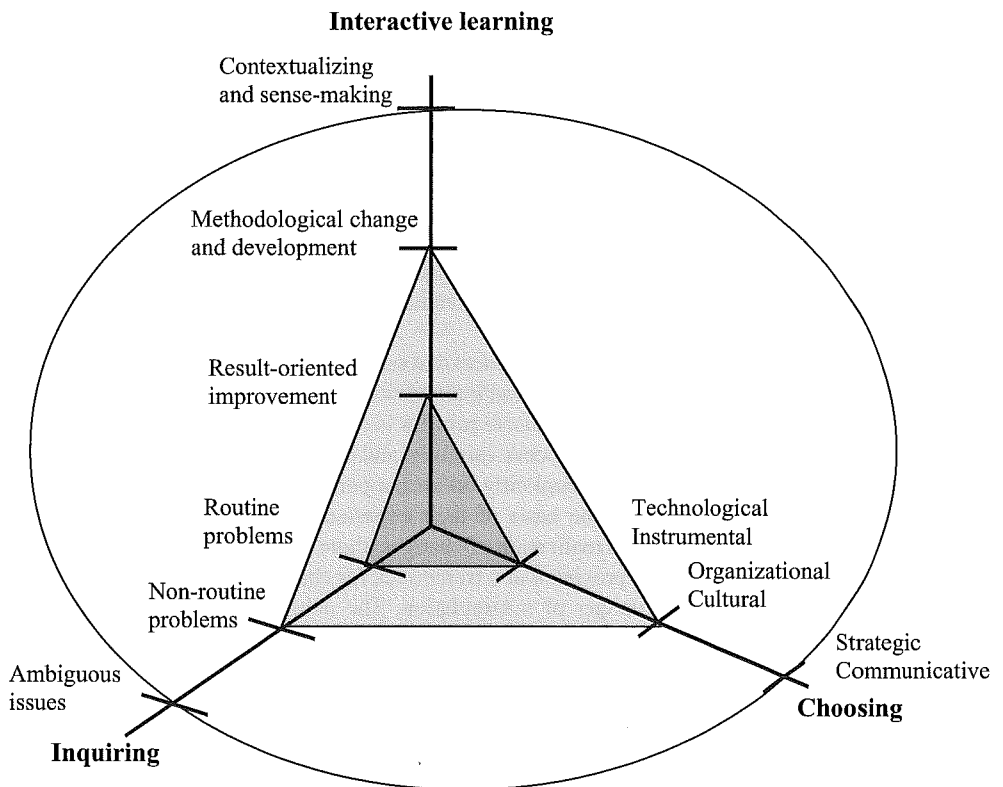

FIGURE 0.1   Processes of change and learning

This argument is presented schematically in Figure 0.1. When the problems are known and the solutions are technical or instrumental, the most suitable approach is one of results-oriented implementation, indicated by the dark triangle. These are improvements within an existing context. Viewed from this triangle, the obstacles to improvement are sought mainly in the context outside of the triangle: the obstinacy of the structure and culture, unclear strategies, and inadequate methods for change. In the search for structural and cultural solutions, it is usually a question of tailor-made answers to known and definable problems and the choice often falls on methodical change. Now there is a great deal of knowledge about such changes, originating in the theory and practice of organizational development. These changes are represented in Figure 0.1 by the lighter triangle.

It now becomes relevant to ask what it means for our looking, thinking, and acting when we have to deal with ambiguous questions and poorly defined problems, where situations are unstable, and interaction patterns are unpredictable. These are no longer improvement projects or change processes in organizations, but renewal processes involving actors from various organizations. These are *third-order* or transformational changes.

Transformational change is the emergence of a totally new state of being out of the remains of the old state (Ackerman, 1986). New forms of organization arise because renewal processes are started on the way to an unknown future. Such third-order changes focus on value systems at the organizational and individual level. In my opinion, these are strategic communicative solutions in which the actors interact with one another, reconstruct the organizational principles, create new contexts, envision the future, and create a collective desire for change and learning. In Figure 0.1 this is represented by a circle. This perspective on change and renewal is based on the dynamic systems theory and social constructionism, and is supported by theories on organizational learning. This approach is discussed in general terms in the following section.

PLAYING WITH DYNAMICS AND UNCERTAINTY

Both planned change and organizational development take the perspective of equilibrium and guidance as they move from a stable initial situation to a stable final situation. These are change processes in which an organization is first unfrozen, then changed, only to be refrozen again in the new situation. It can be questioned whether a striving for equilibrium and guidance is sufficient in a situation in which the environment is less predictable and the phenomena are entirely new.

Organizations increasingly have to deal with complexity and dynamics in the processes of production, innovation, and creation. As a result of globalization and the developments in communications technology, the boundaries between organizations and their surroundings are becoming more flexible. There is an increasing amount of network organization and collaboration in logistic chains. In many business sectors, expansion is reaching the multinational level. This expansion is often accompanied by the need for decentralization and self-management at the local level. The distribution channels between businesses and customers are being changed by data networks and new means of communication. These developments lead to complex patterns of interaction between actors. Our Western society is evolving into a knowledge society; there is an increase in both knowledge and the exchange of knowledge. Knowledge is becoming more multidisciplinary, which adds to its complexity. The acquisition, development, and application of this knowledge bring about innovation and offer organizations possibilities for new products and services. Government organizations are faced with the question of how the knowledge of multiple actors can best be used in the development of policies. The increased interdependence between public and private organizations is blurring the boundaries between the marketplace and government, and leading to hybrid organizations that operate in a state of tension between the public and private sectors. International boundaries between states are also being blurred by international cooperation and regulation, and because social problems are manifesting themselves at the global level. The problems in these dynamic worlds of management and organization are becoming

increasingly unstructured and ambiguous areas in which a great diversity of actors interact with each other and create new realities. As long ago as the 1960s, Emery and Trist characterized the dynamic environment as a 'turbulent field' (Emery & Trist, 1965). They believe that the dynamics are caused by interaction between actors in an environment that is constantly in motion. It is an environment in which the consequences of one's own actions are uncertain. According to Emery and Trist, the uncertainty that this creates can only be overcome if actors interact with each other, look for solid footing in collaboration, and define standards and values together.

ORGANIZATIONAL DYNAMICS

Since the observations of Emery and Trist, organizational systems theory has developed further into a dynamic systems theory, due to inputs from chaos theory and complexity theory, among others (Hoebeke, 1994; Checkland & Howell, 1998; Vennix, 1999; Stacey, 2003). Dynamic systems theory assumes that organization takes place in complex dynamic systems in which actors constantly interact with one another and give meaning to the events around them. Thus, they create a social construction of reality. Causal relationships between specific actions and their effects become blurred by the complexity of the interactions between actors both inside and outside the organization. In these interactions, the boundaries between organizations and their surroundings become less distinct. The system produces and creates its environment, but the opposite is just as true. The organization and the surroundings are complementary; they define each other. The unit of renewal is no longer the organization but consists of organizational networks in their surroundings. Various networks and actors interact with one another and thus form dynamic systems at the local, national, and global levels. These interactions can reinforce or weaken each other. Changes unfold in circular patterns of interaction between these complex systems of people, organizational networks, and environments (Checkland & Scholtes, 1995).

   Organizations are always situated between equilibrium and disequilibrium. Unstable situations lead to creativity which gives shape to innovations. Movement develops in an open-ended evolutionary space without any known objectives. Because the direction and goal cannot be predicted, room is created for unforeseen processes, creativity, and new forms of organization. This may lead to uncertainty, disagreements, and conflict but it is precisely these contrasting points of view that contribute to creativity and renewal. Dynamic systems have the ability to take on new forms in response to changes. These forms are not prescribed by the surroundings but develop in the interactions between people in the organization and the surroundings. The actors are spontaneously active, organize themselves, and create new interactions in which renewal can flourish. In this concept, chaos and order are not opposites but parallel each other. Self-organization develops when stability and instability merge. Instability always leads ultimately to a stable situation if the actors have insight into the dynamics of the system and can intervene in the processes of interaction. This stability gives rest, but is nevertheless temporary because new developments and interaction patterns cannot be predicted and the complexity again increases. It is a bounded instability: periods of stability alternate with periods of instability.

   The dynamics of organizational networks increases and makes room for renewal if the following occurs:

* Many actors with different points of view interact.
* There is a high degree of interaction between the actors and the differences are visible.
* Information and feedback circulate rapidly in the system.
* Feelings and assumptions regarding renewal can be discussed.
* There is an atmosphere of safety in which to express and manage uncertainties.
* Room is created for processes of self-organization.

Managers and the supervisors of change processes can start up a dynamic process by creating the conditions in which the actors can give their own interpretations to the points requiring attention shown above.

SENSE-MAKING

From the perspective of dynamic systems theory, the renewal of organizations is linked to interactions and the exchange of viewpoints on organizing. According to Weick (1979, 1995), these interactions take place on the basis of the meanings that individuals give to social situations and the way in which they talk about them. The role of sense-making in social processes is one of the key themes in social constructionism. This perspective has received important input from social psychology (Weick, 1979, 1995; Gergen, 1982, 1999; Hosking & Morley, 1991; Bouwen, 1995). It suggests that people construct their own reality on the basis of what they experience. This subjective reality helps people to understand, explain, and predict what is going on. Sense-making is seen as a process involving the creation and reproduction of shared meanings (Weick, 1979). In this process, shared meanings that were formed previously may be destroyed and alternative or new meanings are created. New meanings can be achieved by exchanging points of view, reflecting critically on them, thoughtfully evaluating various viewpoints and the assumptions behind them, opening a dialogue to discover new perspectives, and acting to create new possibilities. It is assumed that, by means of dialogue, consensus can be reached about present states and desirable states in the future. The significance of dialogue in effecting change in social systems is attested to by Schein (1993). Genuine dialogue offers the possibility of the exchange of ideas and cross-influencing each other's attitudes and opinions. Dialogue presupposes multiple-voiced communication. Such a process allows the development of both a shared set of standards and values and a shared language to understand events that occur in the process of transformation. Understanding each other's points of view, interests, and convictions is a prerequisite for developing a common image of a desirable future.

The importance of communication is stressed by Hosking (1999). She advocates a relational approach, which allows social processes to be constructed in joint acts, and voices to be intermingled in communicative processes. Relational processes are seen as inherently political; there is always room for multiple voices and points of view. The expression of multiple voices improves knowledge, enriches perspectives, and stimulates development.

According to the theories of sense-making and social constructionism, the interaction between the actors takes place in the context of the constructs that were produced by earlier interactions. The production of constructs is made possible by what was produced earlier, but is at the same time limited by it. The common meanings or social constructs form a reality and cultural practice constructed by the actors which incorporate the common experiences that direct the course of action. The possibilities and boundaries of this manufactured context are not fixed. The multiple and pluralistic character of this makes it possible to exchange, discuss, and adjust the underlying meanings, and initiate processes of renewal in this way.

INTERACTIVE LEARNING

The combination of dynamic systems theory and social constructionism brings us to the concept of *interactive learning*. In ambiguous situations, people become confused because these situations are difficult to understand, due to the unpredictability of interactions and feedback processes, and the multiple meanings and multiple voices of actors. This implies that meanings should be constructed socially in direct interaction with others, in dialogue that makes room for multiple voices.

CASE STUDY: TRANSFORMATION AND INTERACTIVE LEARNING IN NEIGHBOURHOODS

A joint forum of 24 community associations in the city of Amsterdam was struggling with the question: 'What is the meaning and what is the usefulness of the community associations in the new century in relation to the city of Amsterdam and to their neighbourhood?' This ambiguous issue was grounded in the decentralization of governance and administration of the city into district councils.

The city councils were set up after World War II, when there was a housing backlog to be cleared away and the infrastructure had to be re-planned and re-built. The city council was centralized, driven by the need for political and economic reconstruction. To stimulate the reconstruction of the city, the city council formed and financed local community associations in the neighbourhoods. These community associations consisted of voluntary workers who had a close relationship with the citizens in the neighbourhood and participative decision-making in the community centre was an important basis for the realization of numerous activities. After the reconstruction and the programme of urban renewal, the municipal services increasingly worked with the community associations and kept in close touch with them, because the associations had a wealth of information about the neighbourhoods, which the municipal services needed for policy-making and did not themselves possess. At the end of the 1970s a start was made in the decentralization of the governance and administration of the city into district councils. The rationale behind this process was to narrow the gap between residents and the city council. The district councils organized their own civil services in the neighbourhoods as a way to narrow the gap between residents and administrations. Consequently, the contribution of the associations to democracy was seen as less relevant by the civil services, because they focused more on the ins and outs of the politics in the neighbourhood themselves.

In searching for new futures for community associations, data gathering and feedback gave more insight into their activities and functions. It turned out that the most important fields of activity were living conditions, housing, environment, safety, transport, employability, the position of minorities, and welfare. It was concluded that the community associations have an important role in securing amenities in the neighbourhood, and that they also have a role in pointing out problems in the neighbourhood to local politicians and in suggesting improvements. Most associations work in close relationship with the residents, and have a good feel for the problems and issues in the neighbourhood. The associations are, more than the local authorities, capable of bringing people together in order to know and understand problems in the neighbourhood, and to translate them into realistic action plans or programmatic development. Working from the perspective of the residents is seen as valuable and a way of taking action. Possibilities for new futures reside in the forms of participative democracy espoused by the associations, their knowledge of problems in the neighbourhood, the coordination of activities to contribute to the amenity, and the need to bridge the gap between citizens and councils. Based on dialogues, the participants formulated guidelines for their own future:

- collective problems, more than individual problems;
- initiating tasks, more than the implementation of tasks;
- knowledge based on experience, more than professional knowledge;
- interest of residents, more than the specific interest of volunteers;
- perspectives of residents, more than the perspectives of institutions;
- own identity and independence, more than cooperation with institutions;
- own objectives, more than objectives of the councils;
- critical attitude towards councils, more than facilitating tasks assigned by councils;
- participative democracy, more than representative democracy.

These guidelines were helpful in formulating policies, strategies, and action plans.

The participants decided to work out their policies and action plans in their own neighbourhood, and to share their experiences which each other and with members of the councils. Almost all associations learned the necessity of making their policy, strategy, and action plans with volunteers and residents in the neighbourhood more explicit. Almost all participants initiated a process to elaborate policy, strategy, and action plans in their association, together with volunteers, members of the council, and residents. During these discussions the relationship between association and council developed positively in most cases. Members of the associations found common ground with the politicians and civil servants in the need for more attention to the amenity in the neighbourhoods. In most discussions, the tasks and action plans of the associations were seen as significant contributions to the issues of the amenity. The associations that did not want to discuss their policy with the councils were satisfied with their decision, and according to them they were able to fulfil their mission to criticize the council and the undemocratic structures in society more effectively.

For a detailed description of this transformation process, see Boonstra and Van de Graaf (1999).

Based on dynamic systems theory and social constructionism, the principles of interactive learning are as follows:

- Understanding organizing as being feedback systems with positive and negative feedback that maintain or in some cases activate the present method of organizing. It is relevant here to recognize and discuss negative and positive feedback patterns, and to obtain insight into processes and actions that reinforce each other.
- Making room for self-organization in which people have freedom of action, and actors interact on the basis of different functions, backgrounds, hierarchical positions, and groups. Actors should make their own rules in a process of self-organization, and should have the courage to question and adjust these rules so that the underlying assumptions may also be understood and adjusted.
- Jointly charting, recognizing, and clarifying mutual relationships so that the dynamics become visible and the relationships themselves are involved in the renewal process. It is important to strive for transparency in interaction patterns because systems are ongoing, and to accept that engagement consists of temporary and loose coalitions.
- Making room for multiple constructs of reality by the actors in the interaction. Interactions and innovations should be understood in their local contexts because meanings are linked to the situations in which actors construct and use these images. It is desirable to create room for the exchange of knowledge, experiences, and insights, the interpretations of events, personal feelings and ambitions, and different points of view on future possibilities.
- Reflecting on the interrelationships between the actions, constructs, and contexts of actors. It is important that this should not result in an unambiguous and deterministic view of how the meaning should be understood. After all, the interrelationships are merely subjective descriptions that have been produced during interactions and can always be modified.
- Striving for a shared sense-making of events in which pluriformity is nevertheless preserved and as a result of which common perspectives on action can arise in which actors reconstruct their meanings and are actively engaged in interventions to create new futures.
- Finally, there must be room for interaction and reflection on personal actions and the underlying assumptions to make room for learning processes.

These principles of interactive learning have consequences for renewal and learning in dynamic environments. During renewal processes in organizational networks, acting, reflecting, and learning are inseparable. This is a process of experiential learning, or learning by doing in interaction with others. In 1984, Kolb published his model of experiential learning. The underlying idea is that learning takes place in a cyclical process in which concrete experiences are followed by the reflective observation of these experiences. These reflections are then analysed and incorporated into new concepts with the

creation of abstract conceptualizations and generalizations. On this basis, one can choose to experiment actively with new behaviour, testing the implications of new concepts in new situations and forming new questions and new behaviour. This leads in turn to new experiences to reflect on. According to Kolb, learning is a never-ending process; we are capable of learning through acting and reflecting. Kolb's theory of experiential learning fits in with the ideas of Argyris and Schön (1978) on first-order and second-order learning.

In first-order learning, we learn from our mistakes by making ourselves aware of the effectiveness of rules of action, and then we adjust our actions accordingly. First-order learning applies to improving actions based on an acquired store of knowledge and experience.

Second-order learning pertains to reflecting, while acting through an interactive process of asking questions, testing, reflecting, and adjusting while acting. Second-order learning is initiated when surprises are encountered during routine actions, when the problem is not immediately clear and known solutions no longer work. First-order and second-order learning help in solving known problems and approaching definable issues. They contribute to professional and methodological actions in the case of first- and second-order changes in organizations. With third-order changes, where problems are ambiguous and renewal processes are initiated by interactions in organizational networks, learning and acting reach another level and go further than the existing concepts about the learning of individuals within organizations.

In third-order learning, according to Schön (1983), it is a matter of 'reflection-on-reflection-in-action'. This means reflecting on our own manner of thinking, acting, and learning, and the underlying assumptions on which they are based: the way in which we observe and interpret events, define problems, analyse and conceptualize, act, and interact. The point is to recognize and reconsider our own assumptions and patterns of action. In this context of learning, Schön speaks of reflective communication between the professional and the material. In processes of interactive learning, this material is formed by actors who interact and impart meaning. Reflections and sense-making then take place in the course of direct communication and interaction. This means that feedback processes are necessary for renewal, and that there is no unambiguous reality. Meanings are imparted and social realities are produced in the processes of continuing interaction. In these interactions, it is not only the actions that count but also the underlying interpretations of events, the hypotheses regarding positions, the ideas as to possibilities, and the assumptions on which these are based. In order to make the hypotheses and assumptions visible, it is important to allow feedback, to interact and to work with the differences. Differences in acting and thinking expose the processes of sense-making, reveal the underlying assumptions, and create possibilities for new assumptions and patterns of action. Cyclic processes of interaction and feedback arise in which people can learn at the first, second, and third levels and can renew their assumptions and action repertoires.

The heart of interactive learning is that feedback processes become visible, that there is room for processes of self-organization, that interactive processes between actors are initiated, that multiple voices are heard against a background of multiplicity and diversity, that meanings and assumptions become visible, that a shared sense-making comes through dialogue, that joint alternative actions are developed, and that processes of discovering, choosing, acting, reflecting, and learning are initiated.

THEORY IN PRACTICE

I have just sketched a picture of the dynamics of organizing, changing, and learning, of balancing between stability and instability, of ambiguous questions and blurred boundaries, of actors who interact and thereby assign meaning and create possibilities. Many questions remain unanswered. Some of the relevant topics addressed in this book are formulated below:

1. The background of planned change and the knowledge and methodology which are available to contribute to first-order and second-order changes in organizations.

2. The background of organizational development and the knowledge and methodology which are available for second- and third-order changes in organizations.
3. The dynamics of renewal in organizations and organizational networks, the decision-making processes that either stimulate or inhibit this, and the political processes that can either initiate or stop the renewal.
4. The conditions under which people use power and exert influence in renewal processes, and are willing to combine their powers in order to develop a shared perspective and common alternatives for action through dialogue.
5. The interactive processes between actors in dynamic systems, how they act, impart meaning and reflect, and how this contributes to renewal and learning.
6. The development of defensive mechanisms from the perspective of systems dynamics which require appropriate explanatory models and behavioural practices from the fields of psychology, sociology, and political science.
7. The way in which professionals learn and act in confusing, ambiguous, and conflicting situations by reflecting simultaneously on the context, their actions, and their assumptions about reality.
8. The way in which we develop knowledge about organizing, renewal, and learning in dynamic social systems.

The reality of organizing, renewal, and learning is rather turbulent. It is a world of social systems in action, in which the relations between theory and practice play a role. The final question in this chapter I want to address is how we can know this reality and how this world can be understood and changed.

ACADEMIC RESEARCH

In my opinion, traditional academic research is inadequate to generate knowledge about the dynamic reality of interactive learning. This research is guided by traditional values of objectivity in order to attain scientific purity. The investigator's task is to collect and interpret data, independent of the object, and to transform the results into a scientific theory. Naturally, the insights derived from this theory can ultimately be used by change managers and consultants who are engaged in renewal. This includes, for example, the application of generic knowledge about social behaviour and processes in human systems. Theoretical knowledge in such areas as human motivation, leadership, decision-making, the use of power, socialization, interpersonal communication, intergroup relations, conflict management, and learning processes is certainly useful. Knowledge in these fields can support the facilitation of change processes. The application of these theories in practice might even lead to testing the theory; however, their application seldom leads to any doubt regarding the theory or any new knowledge regarding real-life problems. My most important objection to this type of research is that it denies the relationships between the investigator and the empirical object. As put so succinctly by Van Beinum et al. (1996: 181): 'The object is also subject: it talks back.' In my opinion, the ambiguous and changeable world in which dynamic systems operate cannot be understood from the detached position of a pure observer. Academic research is too limited to be able to understand the dynamics of third-order changes.

APPLIED RESEARCH

Applied research is also, in my opinion, inadequately equipped to generate new knowledge about dynamic social systems. Applied research can be helpful in developing methods for planned change. It is certainly useful in the development of knowledge and methods for first-order and second-order changes. It is less useful, however, for understanding and solving chaotic problems in ongoing contexts. After all, applied research has its roots in the model of technical rationality. The practice of change in this model consists of the instrumental or methodological application of scientific knowledge and techniques. The

scientist develops knowledge and techniques that are applied by practitioners. The scientist develops these techniques independently of the object and strives for objective and cumulative knowledge. The practitioners have at their disposal tangible and reproducible techniques that have their basis in research. These techniques are variable and can be applied in accordance with the situation. Practitioners use their knowledge to decide which techniques are best to achieve the intended results. Their actions are then dedicated to the purposeful implementation of changes. In applied research, research and practice enter into a relationship in which the professional investigators supply the theoretical insights and applicable techniques, while professional practitioners supply the investigators with new problems and with assessments of the techniques in practice. Schön used the metaphor of the high land looking out over a swamp. On the high land, problems can be solved using tested theories and techniques. In the swampy lowlands, problems are muddled and messy, and there are limited capabilities for regulated approaches and technical solutions. According to Schön, it is ironic that problems in the high land become of less importance for human beings and society, although they might have a technical importance. The most realistic and fundamental problems emerge from the swamps. In this situation, the organizational professional is confronted with a choice. Would the professional and researcher rather stay on the solid ground of the high land to work on problems which are not really important for society, or is the professional and researcher prepared to go down into the swamps of crucial problems and to work on messy problems with non-regulated research?

Applied research assumes that the problems posed by practitioners can be understood and that, over a longer period of time, the goals will be consistent and more or less unambiguous. However, if we are dealing with dynamic systems, unfamiliar and ambiguous problems, and interactive processes between actors that are both renewing and learning, then this research model is insufficient, no matter how useful the model may be for more stable situations and for first- and second-order changes in organizations.

REFLECTIVE ACTION RESEARCH

The reality of interactive learning consists of actors and experienced experts who must decide how to act. Through their actions, they develop knowledge in interaction with others. In dynamic systems, the researchers interact with the research subjects. In these interactions, the researchers are involved in sense-making and interpreting the reality which is subject to renewal due to their common actions. The relationship between the researchers and research subjects is based on equality, common engagement, and shared responsibility. They consult each other about choosing the starting points for the study, the context of the renewal, the underlying assumptions, and the methods to be used. These choices are made and can be adjusted during the interactions in the process of organizing, renewing, and learning. French and Bell (1998) use the term 'action research' in this context. I prefer the term 'reflective action research' because knowledge is generated in an interactive process in which the actors act, reflect on their actions, and pay attention to the way in which they are learning and generating new knowledge.

Reflective action research is directed at action, reflection, and the generation of knowledge (e.g. Reason & Bradbury, 2001). It is a question of understanding ambiguous problems, initiating processes of interaction, and searching jointly for alternative behaviours so that the problems can be managed. And the point of it all is to generate knowledge and develop theory on the processes of renewal and learning. I consider it unsatisfactory if the knowledge remains available only to the actors in the process itself. It must be possible to make acquired knowledge and learning experiences meaningful for others. All aspects of the renewal process are communicated, giving attention to the context of the study, the various voices that have made themselves heard, the conflicts and tensions that have arisen, and the perspectives and reflections of the actors on their actions and the underlying assumptions. This means that the theoretical assumptions and starting points are made explicit, as well as the tools and methodologies that were used (Burrell, 1996). In my opinion, publishing and presenting practices, insights, ideas, methodologies, and theories are an essential part of communicating, making things explicit, reflecting, and interacting with actors in the research process and with professional colleagues
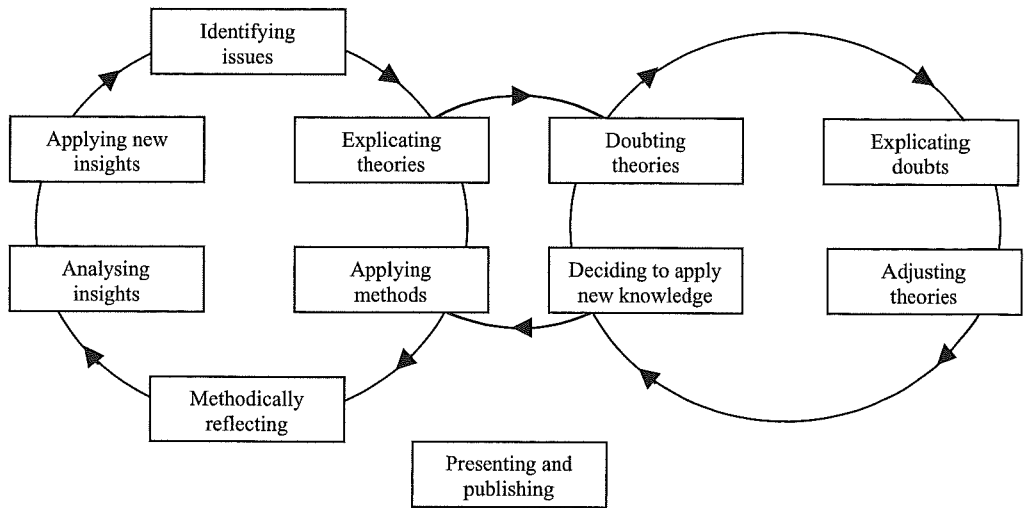
FIGURE 0.2 Reflective action research as a double loop

In their reflections on action research, Eden and Huxham (1996) state that the development of theories takes place in an incremental and cyclical process. In my view, this process comprises the following activities:

1. Identifying ambiguous issues.
2. Making starting points, contexts, and theoretical assumptions explicit.
3. Applying methods and insights when acting.
4. Methodically reflecting on the effects of the actions.
5. Analysing and conceptualizing new insights.
6. Making decisions to apply new insights when acting.

This first cycle is linked to a second cycle in a double loop which consists of:

1. Casting doubt on the earlier theoretical hypotheses and assumptions.
2. Making the doubts and the underlying reasons explicit.
3. Adjusting previous theoretical hypotheses and methods.
4. Making decisions to apply the new hypotheses.
5. Presenting and publishing experiences.

This process of reflective action research as a double loop is shown in Figure 0.2.

The knowledge and insights in this handbook are based largely on reflective action research. Theoretical knowledge has been tested and further developed in practice, methods have been used in practice, and the experience with these methods has been incorporated into a methodical approach to give shape to change processes and bring them to a successful conclusion.

REFERENCES

Ackerman, L.S. (1986) Development, transition, or transformation: the question of change in organizations. *OD Practitioner*, **18**(4), 1–9.
Argyris, C. & Schön, D. (1978) *Organizational Learning*. Reading, MA: Addison-Wesley.
Bashein, M.L., Marcus, M.L. & Riley, P. (1994) Business process reengineering: preconditions for success and failure. *Information Systems Management*, **9**(2), 24–31.
Beer, M. (1980) *Organizational Change and Development: A Systems View*. Santa Monica, CA: G. d.

Beer, M., Eisenstat, R.A. & Spector, B. (1990) *The Critical Path to Corporate Renewal*. Boston: Harvard Business School Press.

Beer, M. & Walton, A.E. (1987) Organization change and development. *Annual Review of Psychology*, **38**, 339–367.

Bennis, W.G., Benne, K.D., Chin, R. & Corey K.E. (1979) *The Planning of Change* (3rd edn). New York: Holt, Rinehart & Winston.

Boonstra, J.J. (1997) Redesign, development and organizational learning. In J.J. Boonstra & K.M. Bennebroek Gravenhorst (eds) *Barriers to Organizational Change and Innovation* (pp. 7–30). Leuven: EAWOP.

Boonstra, J.J. (2000) Walking on water: dynamics of organizing, changing and learning [Lopen over water: over dynamiek van organiseren, vernieuwen en leren]. Inaugural lecture, 10 February 2000, Faculty of Social and Behavioural Science. University of Amsterdam, the Netherlands.

Boonstra, J.J. & Bennebroek Gravenhorst, K.M. (1998) Power dynamics and organizational change: a comparison of perspectives. *European Journal of Work and Organizational Psychology*, **7**(2), 97–120.

Boonstra, J.J. & Van de Graaf, H. (1999) The paradox of democracy in a cosmopolis. *Concepts and Transformations*, **4**(3), 423–448.

Boonstra, J.J. & Vink, M.J. (1996) Technological and organizational innovation: a dilemma of fundamental change and development. *European Journal of Work and Organizational Psychology*, **5**(3), 351–376.

Bouwen, R. (1995) Social construction of power relationships in workplace conflict episodes. In J.J. Boonstra (ed.) *Power Dynamics and Organizational Change*. Conference proceedings, Congress of European Association of Work and Organizational Psychology, 19–22 April, Hungary, pp. 23–31.

Braverman, H. (1974) *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press.

Bunker, B.B. & Alban, B.T. (1997) *Large Group Interventions: Engaging the Whole System for Rapid Change*. San Francisco: Jossey-Bass.

Burrell, G. (1996) Normal science, paradigms, metaphors, discourses and genealogies of analysis. In S.R. Clegg, C. Hardy & W.R. Nord (eds) *Handbook of Organization Studies* (pp. 642–658). London: Sage.

Checkland, P. & Howell, S. (1998) *Information, Systems, and Information Systems: Making Sense of the Field*. Chichester: John Wiley & Sons, Ltd.

Checkland, P. & Scholtes, J. (1995) *Soft Systems Methodology in Action*. Chichester: John Wiley & Sons, Ltd.

Cummings, T.G. & Worley, C.G. (2001) *Organization Development and Change* (7th edn). Cincinnati, OH: Thompson, South Western College Publication.

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

Eden, C. & Huxham, C. (1996) Action research and the study of organizations. In S.R. Clegg, C. Hardy & W.R. Nord (eds) *Handbook of Organization Studies* (pp. 526–542). London: Sage.

Emery, F.E. & Trist, E.L. (1965) The causal texture of organizational environment. *Human Relations*, **18**(1), 21–32.

French, W.L. & Bell, C.H. (1998) *Organization Development: Behavioral Science Interventions for Organizational Improvement* (6th edn). Englewood Cliffs, NJ: Prentice Hall.

Gergen, K.J. (1982) *Towards the Transformation of Social Knowledge*. New York: Springer.

Gergen, K.J. (1999) *An Invitation to Social Construction*. Thousand Oaks, CA: Sage.

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

Hajer, M. (1995) *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford: Oxford University Press.

Hardy, C. & Clegg, S.R. (1996) Some dare to call it power. In S.R. Clegg, C. Hardy & W.R. Nord (eds) *Handbook of Organization Studies* (pp. 622–641). London: Sage.

Heller, F. (2003) Participation and power: a critical assessment. *Applied Psychology, An International Review*, **52**(1), 160–173.

Hoebeke, L. (1994) *Making Work Systems Better*. Chichester: John Wiley & Sons, Ltd.

Hosking, D.M. (1999) Social construction as process: some new possibilities for research and development. *Concepts and Transformations*, 4(2), 117–132.

Hosking, D.M. & Morley, I.E. (1991) *A Social Psychology of Organizing: People, Processes and Contexts*. New York: Harvester Wheatsheaf.

Jacobs, R.W. (1994) *Real Time Strategic Change*. San Francisco: Berrett-Koehler.

Kolb, D.A. (1984) *Experiential Learning*. Englewood Cliffs, NJ: Prentice Hall.

Mastenbroek, W.F.G. (2000) Organizational innovation as the management of interdependencies in networks. In R.T. Golembiewski (ed.) *Handbook of Organizational Consultation* (2nd edn) (pp. 725–733). New York: Marcel Dekker.

Mintzberg, H. (1979) *The Structuring of Organizations*. Englewood Cliffs, NJ: Prentice Hall.

Mintzberg, H. (1983) *Power in and around Organizations*. London: Prentice Hall.

Mintzberg, H. (1988) Opening up the definition of strategy. In J.B. Quinn, H. Mintzberg & R.M. James (eds) *The Strategy Process: Concepts, Contexts and Cases*. London: Prentice Hall.

Pettigrew, A.M. (1987) Context and action in the transformation of the firm. *Journal of Management Studies*, 24(6), 649–670.

Pettigrew, A.M. (1988) *The Management of Strategic Change*. Oxford: Blackwell.

Pettigrew, A., Ferlie, E. & McKee, L. (1994) *Shaping Strategic Change: Making Change in Large Organizations*. London: Sage.

Reason, P. & Bradbury, H. (2001) *Handbook of Action Research: Participative Inquiry and Practice*. Thousand Oaks, CA: Sage.

Schein, E.H. (1992) *Organizational Culture and Leadership* (2nd edn). San Francisco: Jossey-Bass.

Schein, E.H. (1993) On dialogue, culture, and organizational learning. *Organizational Dynamics*, 22(2), 40–51.

Schön, D.A. (1983) *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books.

Stacey, R.D. (2003) *Strategic Management and Organizational Dynamics: The Challenge of Complexity* (4th edn). London: Pearsons.

Tajfel, H. (1982) Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1–33.

Van Beinum, H.J.J., Faucheux, C. & Van der Vlist, R. (1996) Reflections on the epigenetic significance of action research. In S. Toulmin & B. Gustavsen (eds) *Beyond Theory: Changing Organizations through Participation*. Amsterdam: John Benjamins.

Vennix, J.A.M. (1999) *Group Model Building: Facilitation Team Learning Using System Dynamics*. Chichester: John Wiley & Sons, Ltd.

Weick, K.E. (1979) *The Social Psychology of Organizing*. Reading, MA: Addison-Wesley.

Weick, K.E. (1995) *Sensemaking in Organizations*. Thousand Oaks, CA: Sage.

Weisbord, M.R. (1992) *Discovering Common Ground*. San Francisco: Berrett-Koehler.

Yanov, D. (1996) *How Does a Policy Mean? Interpreting Policy and Organizational Actions*. Washington, DC: Georgetown University Press.