



# Team learning on the edge of chaos

Sandra Fisser and Marie-Joëlle Browaeys  
*Nyenrode Business Universiteit, Breukelen, The Netherlands*

## Abstract

**Purpose** – Organizations as complex networks aim to survive. The purpose of this paper is to provide an alternative perspective to current organizational challenges by considering team learning as key factor for surviving this turbulent environment.

**Design/methodology/approach** – The dominating approach in this paper comes from the complexity paradigm. This paper examines team learning of an actual case of an organization in a fast changing environment. It explores the business applicability of concepts of complexity theory to the issues described in the case. Furthermore, it synthesizes these concepts with literature on learning in general and team learning in particular.

**Findings** – For coping with highly dynamic environments, management should reconsider traditional ways of thinking. Teams as networks of learning are a valuable corporate asset that an organization needs to foster when aiming to survive. Measures like minimal interaction rules, individual autonomy and a flexible organization structure demand a new perspective in which subjectivity, non-linear methods and understanding replace attempts for objectivity, linear thinking and control.

**Practical implications** – The alternative approach from the complexity paradigm may be of benefit when handling managerial and organizational issues. Like the challenge of the organization of this case study is shifted from managing teams to facilitating team learning.

**Originality/value** – The paper offers a better understanding of the team learning process and how learning is shared within an organization from an alternative perspective.

**Keywords** Learning, Team learning, Networking, Corporate strategy

**Paper type** Conceptual paper

## 1. Introduction

Today's world is becoming increasingly complex. World markets are currently under severe pressure due to a worldwide financial crisis and business landscapes in all sectors and regions are changing. Influencing the world for individual gain to survive is how many companies operate. Some organizations will succeed and prosper and others will fail and disappear. This raises the question, "What distinguishes companies that will be successful from those that will be not"? In search of a clue, one encounters the hot topic "organizational learning". McElroy (2000) stresses that organizational learning has profound implications for business, since managing to out-learn one's competitors leads to better performance with new ideas translating into lowered costs, higher productivity and/or increased revenue. de Geus (1997) states the ability to learn faster than competitors may well be the only sustainable competitive advantage for organizations. A lot has been said about organizational learning, both by academics as well as by business practitioners. Anyway, the idea that learning may effectively improve organizational performance seems to make sense and will be further explored in this paper. We discuss the need for a paradigm shift that may help managers and leaders as well as academics to comprehend the organizational issues of surviving in a turbulent environment. To clarify our views, we present a case showing



---

how a company moves from a traditional organization structure to teams as networks of learning.

Team learning  
on the edge of  
chaos

## 2. Case background

At the time that this paper was being written the US financial system faced its worst period since the great depression. A financial crisis, caused by the meltdown in the housing and credit markets in the USA, was raging. This brought about a domino effect in the financial sector as well as in the real economy. Banks minimized their lending activity to a dramatic extent which caused severe liquidity problems, even for healthy companies. A sharp fall in share prices around the world was inevitable; a worldwide economic crisis subsequently unfolded. It was widely expected that a profound change in the financial arena would set in, in the USA as well as in Europe; a change that would alter the financial landscape drastically.

Against this background of worldwide economic turmoil, we present a case of an asset manager in The Netherlands. Delta Lloyd Asset Management, a relatively small but energetic company, facing a tremendous challenge in this financial turbulence that hit Europe hard. The company is part of the Delta Lloyd Group, The Netherlands-based, well-known financial service provider, with roots in one of the oldest life insurers on mainland Europe founded in Amsterdam in 1807. The Group's principal shareholder is Aviva plc., a European market leader and the fifth largest insurance group worldwide. Delta Lloyd Group is a customer-focused and service-oriented financial service provider and offers insurance, banking and asset management services. Delta Lloyd Asset Management is active on the Dutch, Belgian and German markets. It is positioned as the asset manager with an "entrepreneurial spirit"; this spirit reflects the distinct, transparent investment processes, the investment portfolio as well as the personality and competences of the fund managers and internal staff. The company competes with its peers; asset managers like, for example, the – also Dutch – Robeco, and "giants" like JP Morgan and Fidelity.

We provide a case example of a company trying to face the challenge of surviving by establishing several special teams with a specific task. This introduced a shift to a new way of working that in the long-term may have consequences for the company's infrastructure, processes, people, leadership and culture.

## 3. Towards a new perspective

Organizations aim to survive and outperform competition. The fundamental question is: what does it take to challenge the future? Like Collins and Porras (1997) noticed: how to prosper over long periods of time through multiple product life cycles and multiple generations of active leaders is a critically important question. Indeed, how to organize the many complex business processes like innovation, logistics and strategy? How to organize the human capital? How to survive a worldwide financial crisis? Obviously, there is not one single answer to these organizational challenges. However, it becomes increasingly clear that many traditional management assumptions underlying most of the measures to deal with a dynamic environment may not be valid anymore. Moreover, it becomes obvious that randomness is a key feature of important organizational phenomena, which, therefore, may be marked as complex. Is the current way of analysis sufficient to cope with the complexity of the organization?

To cope with such organizational challenges a shift from old to new management thinking seems to be required. It is inevitable that this will challenge the validity of the dominating paradigm that prevailed throughout the twentieth century. In this period of Anglo-Saxon management, pragmatism was the reigning method that led to utilitarianism – the search for happiness through innovation and creativity. The focus was put on action and not on analysis, thus on the culture of how and not that of why (Péron, 2002). Nowadays, it seems that management of the organization – and organizational sciences as well – is facing a paradigmatic crisis.

We acknowledge that a paradigm shift in general is not that simple as it affects existing thoughts and deeply rooted beliefs, which we sometimes have long forgotten of our assumptions. Nevertheless, we propose an approach that moves towards a new, shared understanding: the complexity paradigm. Below, we introduce complexity theory and, subsequently, we apply several of its concepts to the organizational change that is occurring at Delta Lloyd Asset Management.

#### **4. Complexity paradigm approach as methodology**

As we mentioned previously, the dominating paradigm in management sciences does not really match with the present needs of the management of organizations for facing complex problems. We argue that complexity paradigm is more appropriate for studying “team learning” in an organizational context, “since it is not unaware of interference and interaction between human beings and their organizational environment” (Browaey and Baets, 2003, p. 335). Here, we explore the business applicability of the concepts of complexity theory to the issues described in the case example, including synthesizing these concepts with literature on learning in general and team learning in particular.

What is complexity theory about? Complexity theory deals with the dynamic non-linear behaviour of systems, “which includes at the same time two different types of behaviour: chaotic or deterministic simple behaviour” (Baets, 1998, p. 24). While causality defines the outcome based on pre-given input, cause and effect, deterministic systems on the other hand create action based on pre-given input; hence, causality is not considered within complexity theory.

The behaviour of dynamic non-linear systems strongly depends on initial conditions. Even small changes in these initial conditions may lead to drastic changes in the system’s behaviour. This sensitivity leads to unpredictable behaviour of the system and subsequently the system’s behaviour is difficult to manage. This is what Mitleton-Kelly (2004) calls the emergence of properties that are often surprising and unpredictable from the study of individual elements. Thus, in an environment near equilibrium, learning probably will not emerge that spontaneously. Or to say this the other way around: in an environment far away from equilibrium, on the edge of chaos, learning and in our proposed statement – team learning may emerge spontaneously.

Another important issue of complexity theory is the concept of entropy borrowed from physics by other sciences in the sense of a tendency to disorganization or to disintegration. It is generally accepted that entropy is a measure of the level of disorder in a system. The larger the disorder, the more entropy increases (Browaey, 2007).

Any organization needs some elements of order, as Morin (2005) states; life would be impossible in a world of pure disorder:

---

Order? It is all repetition, constancy, invariance, all which can be put under the aegis of a highly likely relation, entirely regulated by a law. Disorder? It is all irregularity, deviations from a given structure, hazard, unpredictability. In a universe of pure order there would be no innovation, creation, evolution. There would be no living and human existence. Existence would also be impossible in the pure disorder, because there would be no element of stability to be found in an organization (Morin, 2005, p. 118).

In this paper, we do not aim to further develop the complexity theory; rather we seek to apply its concepts to the aforementioned company. As Smith (2003, p. 321) suggested change could be successfully facilitated through blended application of theory such as system dynamic, and the then emerging notions of “chaos and complexity”. We describe the efforts of this company to share learning across a network of teams from the experiences of Rob Nieuwenhuizen, Head of Sales and Marketing (S&M).

### **5. The need for change at Delta Lloyd Asset Management**

In the year in which the impact of the credit crunch became perceptible throughout the Dutch financial sector, the Head of S&M developed the idea of business teams. In this period he felt the urge for change, to do something different in order to develop new ideas, to innovate, and to improve performance. He feared that without profound change, the company would face major difficulties. He shared his concern and ideas with his colleagues and superiors. It took about a year before his vision was adopted and a strategy based upon this idea was implemented. By the time fundamental restructuring took place in all points of the Delta Lloyd Group, a relatively small, but important change had taken place. The Asset Management division changed a policy that affected organizational structures in an attempt to improve its performance and market position. Within the division, that was originally hierarchically structured in pillars, a “shadow” organizational structure rose that would centre around six, so-called “business teams”. These teams were extracted from the existing six business lines: value investing, theme investing, trend/top-down investing, fixed income, real estate and institutional investments with the value and real estate business teams formatted first and other teams followed shortly after.

This organizational change exemplifies how organizations are complex dynamic systems that can neither stay nor go back to their initial state as the environment changes. This phenomenon, identified by Prigogine and Nicolis (1977) is the concept of irreversibility of time. From the above case we may assume that the future cannot be forecasted out of the past, since we are not able to reverse time. Moreover, this concept implies that within the system there is no use in extrapolation of past experiences in order to predict the future. In the investment business, this may be difficult to comprehend. Paradoxically, we see that on the one hand investment processes in general are traditionally based on extrapolation of past market behaviour and forecasting and on the other hand, it is common knowledge that “results from the past, offer no guarantees for the future”.

#### *Setting up business teams*

At Delta Lloyd Asset Management, it was considered important that the business teams had a cross-functional character. Therefore, the teams were composed of various business functions: portfolio managers and information specialists of the specific “business line”, combined with sales representatives of fund sales and institutional

sales, a marketer, a back-office co-worker and a technical product manager. The portfolio manager as representative of the business line was chosen as the captain of the team. The business teams had to function as autonomous internal think tanks demonstrating an open and accountable process of problem analysis, research, decision making, implementation and evaluation. The teams were supposed to cooperate, to share visions and dilemmas with the “established” organization and to hold each other accountable for results and performance. The most critical task of these teams was to learn from each other and to inspire and influence the rest of the organization. Each team had regular meetings. Ideas considered valuable were presented to the executive board for consideration before implementation. There were no strict rules or performance indicators, only fixed agenda items like: performance, sales, market development, innovation and operations. There was no end date set to the existence of the business teams.

From the setup of these teams we may conclude that we are dealing with a network of individuals that has been given a specific goal and some plain interaction rules. According to the agent theory (Holland, 1998) in such a setup, these interacting individuals – agents – are capable of performing very complex activities, showing learning behaviour. Individual targets, coupled to interaction rules should lead to learning and complex problem solving. At Delta Lloyd Asset Management, the business teams were built and based on simple fitness rules. Viewed from the mentioned agent theory and the self-organization principle (Maturana and Varela, 1987) we may assume that systems do not interact mechanically; the behaviour of the system is generated by its individual components and their interactions. Hence, business teams as systems are circular, self-maintaining, self-referencing and self-producing (= autopoiesis) (Baets, 2004). The latter, autopoiesis, is a feature of networked systems, in which emergent behaviour arises. Structure emerges by connecting various single elements. The business team as a system and its agents will develop some kind of self-organization which is based on some individual characteristics, team targets and interaction rules. In order to emerge to a new initial state Delta Lloyd Asset Management had to find its path by experience and learning systems. Managing a complex dynamic system means supporting these kinds of systems in the discovery and the creation of the emergent path.

At this point the following questions arise: what is the process of team learning in relation to the business teams? How will learning behaviour emerge and how is learning shared within the company?

## 6. The team learning process

Learning as a process implies more than just “taking in information”. In literature we find that it may be seen as a process that brings an individual from one state into another, a more enriched state, whereby, e.g. problem solving, new behaviour, experiences, reflection, knowledge are key (Kolb, 1984; Fiol and Lyles, 1985; Edmondson and Moingeon, 1998; Argyris, 1992). Team learning goes beyond individual learning, as it implies learning on a group level. It is about a dynamic process of social interaction – formal and informal – between individuals. It is about building, sharing and creating. In research, one may find different terms for what is shared between individuals and groups. However, to our understanding the underlying proposition is similar: Kira and Frieling (2005) mention the individual’s “intuition” – acquired through a process of actions, experiences from these actions, reflection on it and conceptualizations for new

actions – that is shared with the group. Baets (2004) refers to the sharing of the individual's mental model that consists of the individual's experiences and which is fed by assessments. Shared mental models are cognitive representations or structures of, e.g. the task, situation and context that are held in common by team members (Jeffery *et al.*, 2005). Synthesizing the main features from literature we describe the team learning process as “the process of sharing individual mental models by which through collective sense making a shared mental model is created and evolved”.

With regard to the case, we observe that the learning process indeed was associated with team members' interaction and in specific, with communication between the individual members of the business teams. Considering the cross-functional setup of the teams, the individual members had to interrelate on a new level. However, according to the Head of S&M the team members were slowly growing into their new roles and adapting to the new setting. Regarding the learning of the teams he stated:

To my opinion the learning power of a business team lies in the ability to communicate. We are not genetically communicative. So, that too is something we ought to learn.

Poor communication – in the full sense of the word – between the individuals and within the business teams can be a block to learning. Learning that involves questioning underlying policies and changing governing conditions and values is sometimes difficult due to the fact that individuals “resort to defensive reasoning tactics in order to avoid vulnerability, risk, embarrassment, and the appearance of incompetence” (Argyris, 1994). With regard to the business teams we gather that, given the poor communication, feedback could also be improved.

The team learning process is a rather complicated process. Although it may seem that it is constructed each time in a more or less similar way, it will never generate exact similar results. This can be clarified by the irreversibility of time concept, as we have seen earlier: time plays a constructive role. Thus, learning is affected by time, and time influences context, as confirmed by the Head of S&M:

I think it's purely a coincidence that the business teams started exactly when the financial crisis was running in its peak. In the end, it took me more than a year to get the idea of the business teams off the ground.

We note that an outcome only receives its meaning from the sense that it has been given by those involved and only in one particular, current context. A result is no more than a subjective representation of a reality at one time. Representations are based on the natural knowledge that an individual acquires during his/her history (Browaeys and Baets, 2003). Also, we may assume, according to the irreversibility of time principle, that knowledge is constructed each time again. There are no best solutions to problems, nothing that we can copy to use again in another situation with the same results.

## 7. How learning is shared

Having looked at the process of team learning we now raise the question: how is learning shared by teams and across the organization? Actually, this question is about lifting the shared mental model of a team to one level higher – to that of the organization. According to Kira and Frieling (2005) individual learning transforms through group processes eventually into institutionalized organizational knowledge: the shared mental models become interpreted in a new way in an emerging social

process, after which the new interpreted knowledge is integrated into the group's and organization's existing knowledge and finally becomes institutionalized as a shared "truth". We note that from a social constructionist view on learning, learner and environment may not be seen as separate, but rather as being interwoven and as such, learning will affect both. Concerning the latter, we notice paradoxical processes, as referred to by Stacey (2003), of individuals that form the social group, while at the same time being formed by it. Hence, "learning is the activity of interdependent people". With which Stacey, to our opinion, goes beyond the social constructionist view on learning.

In the specific context of the case we notice that the way in which learning was shared follows the theory of different levels of learning. First: the idea of business teams was formed by the Head of S&M. He questioned the ways of working and the effectiveness of the traditional organizational structure at the background of the changing financial scenery. Then he shared his point of view with his managing colleagues, superiors and his own team. Finally, the idea of the business teams was adopted by senior management and approved. We may conclude that this sharing of individual mental models gave opportunity to multiply the experiences of people across the organization's networks – like internal staff and managers – a shared understanding emerged.

Concerning the sharing of learning, the Head of S&M had the opinion that cross-department interactions would increase over time; business team members would share business team ideas with their own colleagues, and beyond. The knowledge that could be made explicit out of the learning processes could well be stored in the knowledge database of Delta Lloyd Asset Management that was designed for internal staff and external professionals:

We have to move from top-down to horizontal communication and in the future: to communication across directions, within and outside our company.

## 8. Business teams as a network

We may assume the following: business teams are self-organizing groups of interdependent people that represent a network of closely connected individuals within a given context that, at the same time, form that very same context. This network of individuals may show emergent learning behaviour, self-production and knowledge creation. By allowing these self organizing groups of interdependent people that represent a network of closely connected individuals, to exist and perform within the organization, Delta Lloyd Asset Management is showing learning behaviour –, i.e. organizational learning. Thus, noticing a paradox: one may consider organizational learning not only to happen apart from the individual and team learning processes, but also as being an interwoven part of that same process.

Furthermore, with the complexity theory in mind we expect the business teams as learning networks to generate knowledge of a higher quality than any team member individually might be able to. In each new circumstance the system will be able to re-create itself. However, it must be avoided that the business teams become entirely self-referencing: an autopoietic system is autonomous but operationally closed, in the sense that every process within it directly helps to maintain the whole. Also, the business teams form a network of individuals connecting to and being part of different networks themselves. As stated, the teams have to be operationally open to allow

interrelationships. The business teams should form a learning network that stretches within as well as outside the organization; e.g. distribution partners, shareholders, institutional clients or other stakeholders may attribute to the learning of the business teams and of the organization as a whole.

Adopting the proposition that it is the individual learning from which collective learning may emerge, it is first of all this individual learning that must be simulated within the network. Internal stimuli for the business teams are vital, also to be able to process new external stimuli. These internal stimuli may come from, e.g. the business team members themselves as “interacting agents must be different enough from each other so that non-linear iteration can amplify these differences into novel widespread patterns” (Stacey, 2003, p. 330) – which relates to the process of self-organization. All facilitations and stimuli for individual learning of the business team member may contribute to a “balancing” learning environment. In such an environment, the individual agent is stimulated to learn and show interacting behaviour with other agents –, e.g. fellow business team colleagues or other colleagues – and as well as to develop and show, to a certain extent, individualistic behaviour.

The figure below illustrates how business teams were connected in the organizational network of Delta Lloyd Asset Management: it shows the importance of the open boundaries of the organization as well as of teams. We think that network participation is in general a good internal stimulus for emergent learning behaviour. It follows that each time a new team is re-created, new members and any member of the group can provide interesting input. The premise is that the structure of a team like a business team must not be forced, so that it allows emergence from self-organization (Figure 1).

## 9. Team learning on the edge of chaos

Complexity theory sheds a new light on thinking about organizations as entities and the organizational sharing of learning. The various considerations we earlier made in

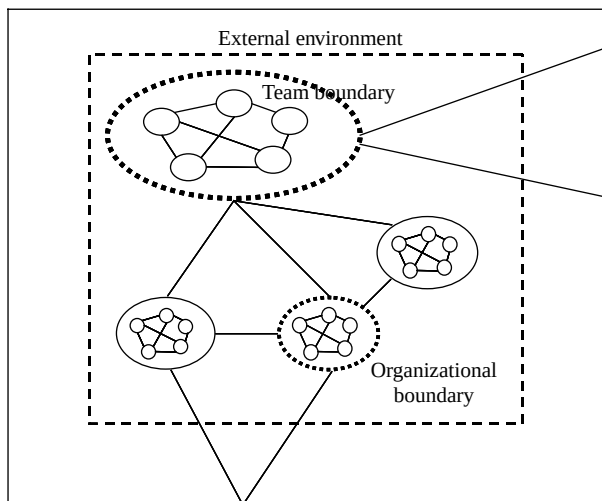


**Figure 1.**  
Teams as networks of  
learning within an  
organization

this paper through the lens of complexity paradigm stipulate that, coping with highly dynamic environments, management should reconsider the traditional way of thinking. With this proposition we should aim to work with managers at any level within the network that forms the organization. Team learning is a true corporate asset that needs to be fostered. Measures like minimal interaction rules, individual autonomy and a flexible organizational structure demand of managers a new perspective where objectivity, linear methods and controlling the future need to be replaced with more systemic and non-linear approaches.

From complexity paradigm perspective it is clear that, with regard to the business teams, learning can hardly be controlled. However, it is expected that it will emerge spontaneously under certain conditions. It is recommended that Delta Lloyd Asset Management moves further towards open thinking, in the direction of understanding complexity. This implies understanding of how to accept ambiguity, contradiction, the inaccuracy of concepts and phenomena, and the unexplainable. Delta Lloyd Asset Management should renew itself to avoid the risk of drifting away over the edge of chaos. The Head of S&M envisioned that the business teams are only the beginning of a series of changes needed to be “prepared for the challenges in a new financial landscape”.

Will it succeed? According to the Head of S&M:

The phenomenon of the business teams has a potential to succeed, but it depends on how it will be managed – by the business team captain as well as the team members themselves. The involvement of each member is crucial. “Change of attitude is the most important success factor: each team member has to understand that there is a common goal, team members may have varying points of view but should have the same motivation” – Investing is not about number crunching, it is about getting the product sold.

This case example illustrates how team learning can be a key success factor for surviving in turbulent environments and it shows the importance of facilitating team learning as a valuable corporate asset that may drive learning across all networks within the organization. The challenge is to expose the system, organization or teams to as much chaos as possible, while balancing far away from equilibrium. It is on the edge of chaos where self-organizing and emergent behaviour will arise. One may gather that in the current economic turmoil, this should not be too difficult to achieve.

## References

- Argyris, C. (1992), *On Organizational Learning*, Blackwell, Cambridge, MA.
- Argyris, C. (1994), “Good communication that blocks learning”, *Harvard Business Review*, July-August, pp. 77-85.
- Baets, W. (1998), *Organizational Learning and Knowledge Technologies in a Dynamic Environment*, Kluwer Academic, Boston, MA.
- Baets, W. (2004), *Wie orde zaait zal chaos oogsten: een vertoog over de lerende mens*, Koninklijke Van Gorcum, Assen.
- Browaey, M.-J. (2007), “Phase transitions: a concept transposable to organizations?”, paper presented at 7th Annual Meeting of European Chaos and Complexity in Organizations Network, Bergen aan Zee.

- Browaeys, M.-J. and Baets, W. (2003), "Cultural complexity: a new epistemological perspective", *The Learning Organization*, Vol. 10 No. 6, pp. 332-9.
- Collins, J.C. and Porras, J.I. (1997), *Built to Last*, HarperBusiness, New York, NY.
- de Geus, A. (1997), *The Living Company*, Harvard Business School Press, Boston, MA.
- Edmondson, A. and Moingeon, B. (1998), "From organizational learning to the learning organization", *Management Learning*, Vol. 29 No. 1, pp. 5-20.
- Fiol, C.M. and Lyles, M.A. (1985), "Organizational learning", *Academy of Management Review*, Vol. 10/4, pp. 803-13.
- Holland, J.H. (1998), *Emergence: From Chaos to Order Redwood City*, Addison-Wesley, Redwood City, CA.
- Jeffery, A., Maes, J. and Bratton-Jeffery, M. (2005), "Improving team decision-making performance with collaborative modeling", *Team Performance Management*, Vol. 11 Nos 1/2, pp. 40-50.
- Kira, M. and Frieling, E. (2005), "Theoretical perspectives on workplace learning", working paper, Institute of Industrial Science, University of Kassel, Kassel, July 2004/June 2005.
- Kolb, D. (1984), *Experiential Learning: Experience as the Source of Learning and Development*, Prentice-Hall, Englewood Cliffs, NJ.
- McElroy, M.W. (2000), "Integrating complexity theory, knowledge management and organizational learning", *Journal of Knowledge Management*, Vol. 4 No. 3, pp. 195-203.
- Maturana, H.R. and Varela, F.J. (1987), *The Tree of Knowledge: The Biological Roots of Human Understanding*, Shambhala Publications, Boston, MA.
- Mitleton-Kelly, E. (2004), Seminar on 12 November 2004, Helsinki.
- Morin, E. (2005), *Introduction à la pensée complexe*, 2nd ed., Editions du Seuil, Paris.
- Péron, M. (2002), "Réflexion sur la transdisciplinarité dans la pensée managériale", in Péron, M. (Ed.), *Transdisciplinarité: Fondement de la pensée managériale anglo-saxonne?*, Economica, Paris.
- Prigogine, I. and Nicolis, G. (1977), *Self-Organization in Non-Equilibrium Systems*, Wiley, New York, NY.
- Smith, P.A.C. (2003), "Implications of complexity and chaos theories for organizations that learn", *The Learning Organization*, Vol. 10 No. 6, pp. 321-4.
- Stacey, R. (2003), "Learning as an activity of interdependent people", *The Learning Organization*, Vol. 10 No. 6, pp. 325-31.

### Further reading

- Edgar, A. and Sedgwick, P. (Eds) (2003), *Cultural Theory, the Key Concepts*, 2nd ed., Routledge, London.

### About the authors

Sandra Fisser is employed as an Independent Marketing Consultant. She holds a Master's degree in General Management of Nyenrode Business University, The Netherlands. Her thesis focused on knowledge and learning of teams and learning and complexity paradigm was reviewed from literature. Prior to this she obtained a Master's degree from the Faculty of Arts at VU University Amsterdam. Her research interest lies in the field of strategy, complexity and organizational learning. She was involved in marketing strategy development for Delta Lloyd Asset Management where she co-operated with Rob Nieuwenhuizen, Head of S&M. She participates in a research project of the Nyenrode Research Institute on "Company characteristics for successful transformation and processes and long term survival".

Marie-Joëlle Browaey is an Assistant Professor at Nyenrode Business University in The Netherlands. Her research interests are organizational culture, learning, complexity thinking and complexity in business organizations. She is involved in PhD research on cultural complexity in organizations. She is also co-author of a book entitled *Understanding Cross-cultural Management*, which was published in 2008 by *Financial Times/Prentice-Hall*. Furthermore, she is a member of the European Chaos and Complexity in Organizations Network and the Association pour la Pensée Complexe. She participates in a research project of the Nyenrode Research Institute on “Company characteristics for successful transformation and processes and long term survival”. Marie-Joëlle Browaey is the corresponding author and can be contacted at: [m.j.browaey@nyenrode.nl](mailto:m.j.browaey@nyenrode.nl)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.