

**An explorative analysis of the links between  
learning behavior and change orientation**

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**Abstract**

The article presents an explorative study on the links between learning behavior and change orientation of individuals. When reading literature on how to develop employees and organizations, it strikes one how less focus there is on learning and change needs of individuals. This paper deals with this missing notion by detecting the learning behavior of employees and the change orientation of individuals in organizations. We explored the interconnections between these two individual developmental characteristics. From our pilot study can be suggested that learning behavior and change orientation are linked with each other based on two distinguished dimensions; a prospective orientation and a reflective orientation. We argue that managing learning or change in organisations should be in line with the dominant learning and change orientations of the employees. Given the need for a reflective change program, interventions should be made to stimulate learning behavior and thinking about change in the direction of reflection. The same holds for situations in which there is a need for a prospective change program. Based on these insights, the article outlines a research agenda and researchable questions in the field of learning and change in organizations.

**Key words:** *Learning behavior, Change orientation, Organization development*

## **An explorative analysis of the links between learning behavior and change orientation**

### **Introduction**

In a business context where continuous learning and development are the hallmarks, it is necessary to detect the characteristics of the ways of learning and thinking about development and change. We know that organizations can differ with respect to the orientations towards change and development. Weick and Westley (1996) relate different forms of organizational development to different forms of organizing. De Caluwé and Vermaak (2002) relate different concepts for change with different forms of organizing and managing. Both studies state that organizations have different cultures and forms of organizing, and, therefore, the orientations towards learning and changing are different too.

Individuals also differ in their orientation towards learning and change. Van der Sluis (2003) and Cunningham and his colleagues (2002) argued that research on these individual differences is important in an era where continuous learning and change are the hallmarks of economic life. This research will increase the understanding and success of efforts to improve organisational development and change programs. This argument together with our interest in differences and congruencies between individual learning behavior and change orientation form the starting point of this research.

Research and the development of knowledge in the field of individual differences in learning and change orientations is relevant for change agents, management consultants, managers and for all those who deal with changing and learning in organizations. It can wide their spectrum of possible interventions and it can lead to the desired effects.

### **Theoretical background**

The ways in which an individual's value's and orientation affect behavior has long been a focus for study across the social sciences (Amis, Slack and Hinings, 2002:436). According to these authors understanding the impact of values on social settings has become a pursuit of social psychologists and organizational behaviorists. Psychologists like Zaleznik (1989), Prochaska et al (1992), Kets de Vries (1996),

Metselaar (1997), Amis et al (2002) and Cunningham et al (2002) conceptualized processes of change from an individual perspective. One of the subjects in this line of research is the *willingness or readiness for change* (Metselaar, 1997; Cunningham et al, 2002). Research of the readiness for change suggests that a demonstrable need for change, a sense of one's ability to successfully accomplish change (self-efficacy) and an opportunity to participate in the change process contribute to readiness for organizational change (Armenakis, Harris, & Mossholder, 1993). When imposed change represents occupational, logistical and psychological risks to employees, and is not linked to perceived need for quality improvements, the success of these changes may be compromised (Armenakis *et al.*, 1993; Ho *et al.*, 1999; B.A. Spector, 1989). Readiness for change models have applied widely in the organizational and behavioral sciences. It begins with an individual's perception of the benefits of change, the risks of failing to change, or the demands of externally imposed changes. Self-efficacy, the perceived ability to manage change successfully, exerts a mediating effect on readiness for individual (Prochaska *et al.*, 1997) and organizational change (Amenakis *et al.*, 1993). Workers with confidence in their ability to cope with change should be more likely to contribute, for example to organizational redesign. In contrast, workers may resist changes that they believe exceed their coping capabilities (Cunningham *et al.*, 2002).

*Learning theories*, at both the individual and group level, can be broadly divided into behaviorist and cognitive theories. In the various forms of learning theory, people form plans and images based on their needs, motives, values and beliefs about themselves; they act on these; get feedback about the effects or consequences; and then actively modify perceptions, plans and behavior accordingly (Hendry, 1996; Sminia & Nistelrooij, 2004).

By behavioral scientists performance and learning are results of ability and motivation. Goal-setting is viewed as a motivational technique in terms of learning. However, setting a specific challenging performance goal has a detrimental effect on a person's effectiveness in the early stages of learning (Kanfer & Ackerman, 1989). This is because in the early stage of learning, before effective performance routines have been identified have become automatic. A person's attention needs to be focused on discovering and mastering the processes required to perform well, rather than on the attainment of a specific level of performance or other goal. In addition, the assignment of a specific challenging performance goal makes some people so anxious

to perform at a high level that they scramble to discover the task-relevant strategies in an unsystematic way. In doing so, they fail to learn in a timely fashion the most efficient ways to accelerate their effectiveness (Seijts & Latham, 2005). Hence, there is an importance of knowing that learning and performance differ in their purposes.

### **Need for learning and change**

Organizations want that their employees learn and change to make them adopt new ways of thinking and acting that would be more appropriate. At the same time, organizations –their work practices and managerial structures –remain intact. But how can organisations establish this need for learning and change? Transforming the organisation into a learning organisation is definitely an appropriate solution but has been described as difficult way to design and accomplish. An alternative that also leads to learning and change in organisations is organisational development. *Organization Development (OD)* is a construct based on learning through stimulating imagination, work assignments that require organisational members to go outside their comfort zone, to engage in discovering, and to ‘think outside the box’. Learning is the key element that differentiates OD from other approaches to organizational change (Cummings & Worley, 2005:2).

However, today’s workforce continues to be focused on performance instead of learning. There is an intense pressure to produce tangible results. They are in a “performance mode”. Nevertheless, a high performing workforce is a function of both high ability and high motivation. This is particularly true in today’s business environment in which organisations face rapidly changing technologies, information overload, escalating competitive pressures, and a host of other challenges.

Recognizing the complexity of organizational environments and the need for organisational as well as individual learning and change as a result of that, various models have emerged that describe humans as self-regulating living systems, which both affect and are affected by their environments (Powers, 1973; Carver and Scheier, 1981; Ford, 1987; Bandura, 1991; Latham and Locke, 1991; Karoly, 1993). This dynamic perspective on the process of individual learning and change, in the context of organisational environments, is supported by social construction theory (James and others, 1978; James and Jones, 1980; James and Tetrick, 1986). According to this theory, individuals learn and develop within social and mutually creating relationships between their work practices and the changing environment over time.

### **Individual differences in learning and change**

Not everyone has the same capacity (Morrison and Brantner, 1992) or ability to learn from experience (Burke, 1989) and people differ in their approach to learning (Van der Sluis, 1999; Poell, Van der Krogt, and Wildemeersch, 1999; Dechant, 1990; Kelleher, Finestone and Lowy, 1986) and in their approach to change (Boonstra, 2004; Caluwé and Vermaak, 2002; Beer and Nohria, 2000). Both the way in which individuals learn and the extent to which they learn are a matter of importance. An individual's way of learning, that is the learning behavior, will affect the kind and extent of learning from any particular situation. Similarly, the individual way of thinking about change, that is the change orientation, will affect approaches to change and, therefore, the development in and of the organization.

Moreover, between these two variables there seem to be similarities and interconnections to exist. Research suggests that both the learning behavior and the change orientation influence occupational achievement (Spreitzer and others, 1997; Colarelli and others, 1987; Hoeksema, 1995; McCauley and others, 1994) and organizational development (Cummings and Worley, 2004, French and Bell, 1999).

But do these two constructs have any interconnections or overlaps? The purpose of this paper was to explore this by analyzing the relationships between learning behavior and change orientation of employees, both theoretically as well as empirically. Furthermore, we aimed to develop hypotheses that identify the similarities and stability of individual learning behavior and thinking about change. First, a conceptual framework will be presented in order to define and identify the research variables learning behavior and change orientation. This is followed by a description of preliminary empirical findings of our pilot study on the relations between learning behavior and change orientation. Based on these linkages, we will continue to build hypotheses that could be tested in order to gain knowledge about the similarities and stability of individual learning behavior and change orientation.

Against this background our main research question can be formulated as follows: 'How is the individual learning orientation related to the individual change orientation?'. If we detect relations between these individual orientations, then we might take a step to relate organizational learning and organizational change. The underlying assumption behind this reasoning is that we believe that individual learning is the starting point for organizational learning and eventually sustainable

competitive advantage (Huysman, 2000). In a similar vein, individual change orientation lies behind organizational change and ultimately the sustainable competitive advantage of the company. So, the survival of an organization (on the long term) depends on the learning and change orientation of the employees of the organizations. Therefore, these constructs are worthwhile to take into consideration for an in-depth look of individual learning behavior and thinking about change. Knowledge derived from this study will improve the tuning in individual and organisational learning and change processes which is important to the success of organisational development and change programs.

### **Conceptual framework**

Our conceptual framework is built around two main research variables, learning behavior and change orientation. Each variable will be described and defined below.

#### *Learning behavior*

It is widely suggested that not all people learn equally well from the same kind of experiences at work (Spreitzer *and others*, 1997) or learn the same from similar experiences (Van der Sluis, 2000). As such, organisational learning and development is likely to be affected by different ways of learning of organisational members.

Nevertheless, there is a lack of studies of learning behavior in organizational contexts (Sadler-Smith, 1998). Only three relevant studies exist with respect to learning in organizational settings, including Hoeksema (1995), Megginson (1996), and Van der Sluis (2000). In these studies learning behavior is considered within an organizational context, whereas learning behavior is defined as ‘a series of behaviors which enables one to structure and motivate their own work behavior by setting goals, practicing new and desired behaviors, keeping track of progress, and rewarding oneself for goal achievement’. In short, a learning behavior is ‘an approach of learning tasks’ (Van Parreren, 1989). The essence of this notion is that the learning behavior represents a distinctive and habitual manner of acquiring knowledge, skills or attitudes through experience.

Hoeksema *and others* (1997) distinguished two different learning behaviors; meaning oriented learning behavior and instruction oriented learning behavior. The former refers to a search for the deeper meaning of experiences on the job and the latter to a focus on instructions to meet one’s obligations and to answer expectations.

Megginson (1996) defined also two kinds of learning behavior among managers. He found that managers learn in a planned or in an emergent way, the two relatively excluded. He defined planned learning as a deliberation/forethought approach and emergent learning as an unpremeditated exploration of work experiences. Van der Sluis (2000) related these four learning behaviors to each other. She showed that learning behavior of managers could be distinguished by two dimensions. One dimension includes the two extremes ‘learning’ and ‘performance’. The other dimension includes the two extremes ‘retrospective learning’ and ‘prospective learning’ (Van der Sluis, 2000). These notions were empirically evidenced by factor analyses of survey data collected from European managers (Van der Sluis, 2001). This can be depicted by a two-by-two matrix as shown in the figure below.

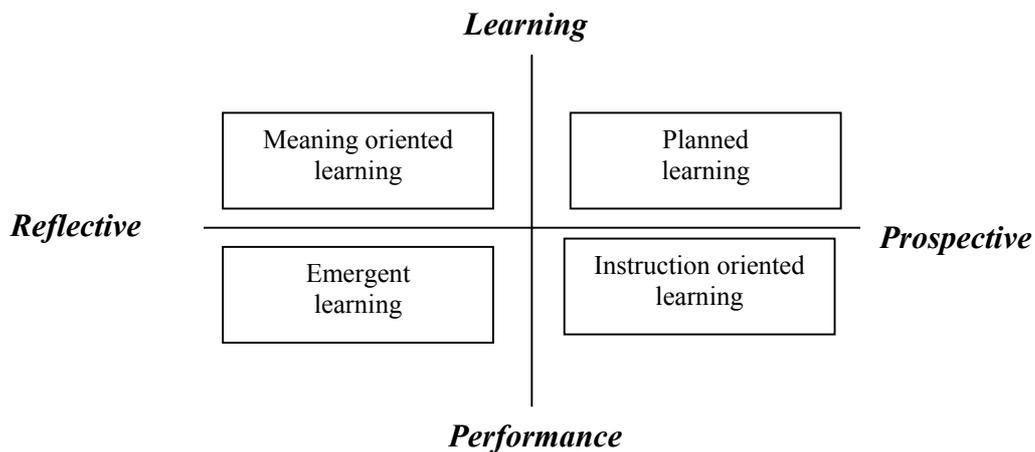


Figure 1. *Learning Behavior Matrix*

#### *Change orientation*

The change orientation can be described by the idea of thinking about change in five different concepts. They are labeled by a color.

#### **Change from a power perspective: the color yellow**

De Caluwé and Vermaak (2003) connect the yellow color with the symbolic of power. According to the authors this perspective relates to organizational change processes, in which interests, conflicts and power play an important role. This way of looking at

realizing change assumes that people will change when you take into account their (own) interest or when you can compel them to accept certain ideas (Pettigrew, 1975:205). It resembles the power-coercive strategy of Chin and Benne (1976:39) and it is often found in change processes where different persons or parties are involved (De Caluwé and Vermaak, 2003). De Caluwé and Vermaak (2003) describe the yellow perspective on change as a negotiation exercise aimed at achieving feasible solutions based on win-win and consensus. Examples of yellow interventions are: confrontation meetings, strategic alliances and inter-group conflict resolution (Cummings & Worley, 2004).

### **Change from a blueprint perspective: the color blue**

De Caluwé and Vermaak (2003) assign the color blue to change processes in which there is a clear blueprint approach and a coherent detailed plan to implement it. It refers to change processes that are based on rational design followed by implementation of change. One of the main assumptions in this perspective is that people or things will change, if a clearly specified result is laid down beforehand. All steps are planned down to the last detail and the specified result as well as the path to be taken is kept well under control. This kind of thinking about change resembles Chin and Benne's (1976: 24) empirical-rational strategy and is based on the assumption that people are rational creatures. De Caluwé and Vermaak (2003) describe the perspective on change as managing, planning and controlling the process towards a clear result. A blue way of changing organizations is aimed at the realization of the one and only best solution. Some examples of blue interventions are Business Process Redesign, Total Quality Management, project management and auditing (Cummings & Worley, 2005).

### **Change from a HRM perspective: the color red**

De Caluwé and Vermaak (2003) connect the color red with the human blood and use this label for change processes in which the human being is seduced and change is made attractive. Change from this perspective stimulates and motivates people for change, and makes change attractive to them. It is assumed that people will do something or change if they get something in return (the "Barter" principle). This is similar to what Zaltman and Duncan call the Barter strategy (1997). Red examples of

interventions are: competency management; use of HRM instruments; fit between the individual and the organization; social activities (Cummings & Worley, 2004).

### **Change from a learning point of view: the color green**

De Caluwé and Vermaak (2003) use the color green for change processes in which the development of people and their learning abilities are central. The color green symbolizes the notion of natural and continuous growth. In this way of looking at realizing change, the main assumption is that people change when they learn. This way of thinking is similar to what Chin and Benne (1976:31) describe as the normative-re-educative strategies, aimed at unlearning certain behaviors and experimenting with new behaviors. When you organize and orchestrate learning on a collective level organizations as a whole will learn (Hendry, 1998). De Caluwé and Vermaak suggest that the green perspective on change consists of giving feedback, facilitating learning and the creation of a safe environment in which people have the opportunity to experiment with new behavior. Examples of green interventions are: gaming, coaching and action learning (Cummings & Worley, 2004).

### **Change from a self-organization point of view: the color white**

De Caluwé and Vermaak (2003) connect the white color with open space, in which people can bring in their own wishes and desires and can create processes of self-organization. Change is seen as a perpetual mobile and as an autonomous self-driving that comes from people's own energy and sense making. It refers to 'emergent' processes (Orlikowski in Weick, 2000), in which certain patterns are interpreted in a different way or in which different labels and realities are created (Weick and Quinn, 1999:380). Different actors exchange meanings and give sense by ways of direct participation, common ground and dialogue (Van Nistelrooij & Sminia, in progress). According to De Caluwé and Vermaak (2003) a white perspective on change is based on removing blocks, close observing, giving meaning to what is happening, allowing external uncertainty and relying on internal certainty. Examples of white interventions are: self-steering processes, search conferences, open space and Appreciative Inquiry (Barrett, Thomas & Hocevar, 1995).

### **Learning and changing: some conceptual relations**

In the Organizational Development literature (see Cummings and Worley, 2004; French and Bell, 1999) learning and changing are seen as similar concepts. Organizational Development Interventions seek to improve how organizations relate to their external environments and function internally to attain high performance and quality of work life (Cummings, 2004). Organizational Development has emerged principally from the theories of behavioral sciences, especially in the fields of social psychology and group dynamics. In general, a process of organizational development starts with an analysis by all parties concerned of problems and possible solutions. Changes are realized gradually and the members of the organization are highly involved. Learning by individuals, by groups and by the entire organization is a key concept in the methods and procedures that are applied.

In the change literature Organization Development is different from more programmatic planned change approaches (they are called 'episodic' changes, see Weick and Quinn, 1999). This approach assumes the ability to predict and control 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. Changes are initiated, guided and controlled by top management. Experts play an important role in problem analysis and in the guidance and implementation of changes. Of course learning takes place: these are forms of first order learning: new procedures, new instructions. Little attention is given to increase the learning capacity within the organization (second order learning). In this approach it is difficult to enlist or invite people to participate in the change process, because existing work procedures are consciously pushed aside.

Several authors distinguish between first-, second- and third order learning (see Boonstra, 2004).

First order learning or single loop learning (Argyris, 2004) focuses on changing rules, practices and competencies. It is a passive internalization of an existing culture in which the learner copies correct behavior that is readily available in an organizational context. Learning is knowledge acquisition and the application of the rules of action based on an acquired store of knowledge and experience. It is related to the grammar of behaviorism and the cognitive school of thought and based on explicit knowledge and connected to embrained and encoded knowledge (see Lam, 2004).

Second order learning is related to Model II type of learning (Argyris, 2004). It is embodied knowledge which focuses on practical and individual types of knowledge that is developed by through experience and reflection (Lam, 2004). Learning is associated with purposeful action and it involves replacing current values and insights by new ones. The learning process is basically individual, but it takes place in a social context and affects social organization through the exchange of new insights. Individuals learn to explore different perspectives on problems and issues and to link their exploration to the development of the organization, their relationships with others and the reflection on their insights and assumptions.

In third order learning learners question the validity of activities, relationships and meanings posed by context and interactions. During the very process of organizing, changing and learning, contexts, principles are inquired, deconstructed and reconstructed. Existing cognitive maps and competencies are destroyed and new competencies, activities, relations and meanings emerge in a process of acting, reflecting and relating. Knowing and learning exist as engaging with others in a context of organizing and changing.

This third order learning is conceptually connected to the notion of Continuous Changing (see Beer et al, 2000). It is connected to learning as a collective process. Changing and learning on the level of principles mean that people reorder relationships and activities and deconstruct and reconstruct meanings together (Wierdsma, 2004). Learning is seen as a change in routines, response, repertoires and basic assumptions about social realities and interrelations. A range of skills, rules, insights, principles and knowledge is altered in an interactive process of relating, acting, reflecting, interpreting and sense making.

In trying to gain an rough overview of theories on learning and changing, we see a conceptual fit between their underlying assumptions, belief systems, and thought worlds: episodic changing and first order learning; organization development and second order learning and continuous changing and third order learning. We also see that the yellow and blue approach of changing corresponds with the episodic approach, red and green with the organization development approach and continuous changing with white thinking. Each of these related concepts has its own interventions and approaches. Boonstra (2004) gives a list of interventions, which illustrates the big

differences in thinking and beliefs underlying these concepts. One can add easily: blue on the left hand side, red and green in the middle and white at the right hand side.

## **Method**

*Learning Behavior.* We measured learning behavior using both the scale of Hoeksema (1995) and the scale of Megginson (1996). This resulted in a measurement of 17 items: 8 of Hoeksema's scale to be answered on a 5-point scale from 1 ('never or only rarely true for me') to 5 ('always or almost always true for me'); and 9 items of Megginson's scale to be answered on a 7-point scale from 1 ('never true') to 7 ('always true'). This measurement was validated by Van der Sluis (2001), based on factor analysis and reliability analyses for each factor.

*Change orientation.* We measured the orientation to change through the so called: puntentest. It is a test with ten (incomplete) statements. Each statement is then followed by five alternatives to finish it. These five alternatives reflect each of the five concepts. Respondents must give eight points to one, two or even five alternatives. They give zero up to eight points for one alternative. This test has been compared with a test based on an scale and a case analysis method. In the parallel test comparison more than 80 % of the respondents had the same score (which is an indicator for reliability). In the comparison between test en case, the "puntentest" scored best on content validity (see: Martens Dias, 2001).

## **Results**

In a recent study of Kasten (2004) the mutual relations between learning behavior and change orientation were explored. The results showed the following relations.

- High scores on instruction oriented learning behavior were linked with high scores on a blue way of thinking of change
- High scores on instruction and planned learning behavior were linked with low scores on a white way of thinking of change
- High scores on meaning oriented learning behavior were linked with low scores on a blue way of thinking of change
- High scores on emergent learning behavior were linked with low scores on a blue and yellow way of thinking of change

Based on these analyses, we suggest that the type of learning and change are interconnected with each other as showed below.

Level of learning and change	Change (Boonstra, 2004)	Color concepts (Caluwe & Vermaak, 2002)	Learning behavior (Van der Sluis, 2000)
1	Episodic	(Yellow), blue	Instruction orientation
2	Organization development	(red), green	Planned and meaning oriented
3	Continuous change	White	Emergent

Figure 2. *Linkages between types of learning and change*

These results lead to the following hypotheses that could be analyzed in further research.

H1. Learning orientations and change orientations with both a prospective focus are related to eachother

H2. Learning orientation and change orientation with both a reflective focus are related to eachother

Based on the complex interaction between individual behavior and organisational environments as discussed in the introduction we could expect that learning behavior and change orientation of an individual will be effected by changes in the organisational context. Therefore, we suggest that the following hypotheses are worthwhile to analyze:

Hypothesis 1. Individual learning behavior is contextual dependent over time

Hypothesis 2. Individual change orientation is contextual dependent over time

## **Conclusion**

In this article the relation between learning behavior and change orientation of individuals was explored. The learning behavior was defined as different ways of learning, closely connected with various learning orientations. The change orientation was defined as different ways of thinking about change. The link between these two types of orientation was first analyzed by studying literature about learning and change orientation. After this, this link was explored by doing a pilot study among graduate students of a Dutch university and Dutch managers affiliated to a wide range of national and international Dutch companies. The results of both studies strongly suggest that learning behavior and change orientation are closely related to each other. There seems to be evidence for similarities between focus points in learning behavior and change orientation. More specifically, a learning orientation towards instructions was significantly related to the yellow and blue concepts of thinking about change. Furthermore, a planned and meaning orientation seemed to be interconnected with the red and green concepts of change orientation. And, finally, a short term, emergent orientation towards learning seemed to be related with the white way of thinking about change.

These results may be helpful in understanding for example the need for learning and the readiness for change of individuals, in particular employees.

## **Discussion**

Change is a necessity for organizations to survive in current economic climate. In this article the question is raised how to approach this change. Change in organizations depends on the learning and change orientation of their employees. Therefore, we analyzed these constructs in more detail in order to detect how learning and change orientations are connected with each other and whether these individual characteristics develop over time.

In Europe's competitive and dynamic knowledge-based society learning and change are viewed as critical elements of sustainability and growth. Whether these individual characteristics develop over time should be analyzed in further research. Based on current notions of the stability of these constructs, we expect that these are not stable over time. That is because learning and change are affected by the job environment

and organizational context. The dynamics of current business market and society will enhance the need for dynamic and leaning organizations. This will result in changes of individual learning behavior and change orientation over time.

Organizations are increasingly under pressure to change or transform their systems, structures, policies and/or practices in order to improve their environment for success, and repeatedly, it is acknowledged that knowledge and skills will become the pivot upon which competitiveness rests (Heraty and Morley, 2002).

Inescapably, as knowledge becomes regarded as the primary competitive resource, both organizations as well as their employees have to focus on their own knowledge gathering, maintenance and development. With the words of Arthur and DeFillippi (2000) both parties should take care of “knowing what to do”, “knowing how to do”, and knowing who to know”. Adler, Goldoftas, and Levine (1999) posit that the main task of management involves the creation of an environment of interaction between individuals and the organization for strengthening each other’s knowledge base and to ensure that learning processes take place. The next step for management is then to influence these processes in such a way that there is a fit between the learning goals of the individuals and the organization. In search of this fit and maybe the optimum of knowledge sharing, organizations could benefit from our study. By knowing that there is a link between learning behavior and change orientation of individuals, organizations are better able to adjust the change program to the workforce.

If the learning behavior of the employer can be characterized by an instruction orientation and the change orientation can be defined as blue, then episodic change is the best way to enhance development in the organization. However, if this type of change is needed and the learning and change orientations of the individuals are not instruction oriented and blue-colored, the management should first pay attention to this misfit before starting the change program. The same holds for the other types of learning behavior, change orientation and types of change. In case of misfits between the three concepts, the management should either intervene to transform the learning behavior or the change orientation of the employees or the management should choose a different kind of organizational change.

While the critical importance of learning and change as a prerequisite for effective organizational functioning is readily accepted, there appears a dearth of analyses on how organizational learning and development can best be understood and how the process can be initiated and managed (Heraty, 2004).

As already mentioned in our introduction, we view learning as the key element of organizational development. Change orientation and the readiness for change are individual characteristics that seem to be closely connected to the learning behavior of individuals, more specifically, the focus of their learning. This seems to indicate that organizational development is driven by individual learning behavior and change orientation, which are mutual related. Future research in the area of organizational development should build on this knowledge in order to further detect what interventions could lead to a change in learning behavior and thinking about change. Furthermore, future research should analyze how differences in learning behavior on individual level influence learning processes on the organizational level. Insight in these dynamics will help organizations to be sustainable competitive through creating dynamic learning organizations via continuous organizational development.

Based on our conclusions we can give some hints to stimulate learning behaviors and change orientations that seem to be appropriate in a certain organization given the career phase of the individual.

## References

- Argyris, C. (2004): *Double-loop Learning and Organizational Change: Facilitating Transformational Change*. In: Boonstr, J (ed.): *Dynamics of Organizational Change and Learning*. Chichester: John Wiley and Sons.
- Armenakis, A.A., S.G. Harris and H.S. Field (2000), Paradgims in organizational change, change agents and change target perspectives, In: R.T. Golembiewski (Ed.) *Handbook of organizational Behaviour*, 2th rev. edition, New York: Marcel Dekker.
- Barrett, F.J., Thomas, G.F., & Hocevar, S.P. (1995). The central role of discourse in large-scale change: a social construction perspective. *Journal of Applied Behavioral Science*, 31(3), 352-372.
- Beer, M. and N. Nohria (2000): *Breaking the Code of Change*. Boston: Harvard Business School Press.
- Boonstra, J, ed. (2004): *Dynamics of Organizational Change and Learning*. Chichester, Wiley and Sons.
- Brown, J. S. and P. Duguid (2001). *Knowledge and organization: A social-practice perspective*. *Organization Science* 12(2): 198-213.

- Chin, R., & Benne, K.D. (1976). General strategies for effecting changes in human systems. In W. Bennis, & K.D. Benne, & R. Chin & K.E. Corey (Eds.), *The planning of change* New York: Holt, Rinehart & Winston, 22-45.
- Cummings, T and C. Worley (2001): *Organization Development and Change*. South Western College Publishing
- Cummings, T.G., & Worley, C.G. (2005). *Organization development and change* (8 ed.). Cincinnati: South-Western College Publishing.
- Cummings, T. (2004): *Organization Development and Change: Foundations and Applications*. In: Boonstra, J. (ed.): *Dynamics of Organizational Change and Learning*. Chichester: John Wiley and Sons.
- Damanour, F. (1991). 'Organizational innovation: a meta-analysis of effects of determinants and moderators'. *Academy of Management Review*, Vol. 34; 3, p. 555-590.
- De Caluwé L.and Vermaak (2002): *Learning to Change. A Guide for Organization Chang Agents*. Seven Oaks: Sage Publications.
- French, W. and C. Bell (1998): *Organization Development: Behavioural Science Interventions for Organizational Development*. Englewood Cliffs, NJ: Prentice Hall.
- French, W.L., & Bell, C.H. (1999). *Organizational development; behavioral science interventions for organization improvement* ( 6th ed.). Englewoord Cliffs: Prentice-Hall.
- Hendry, C. (1996). Understanding and creating whole organizational change through learning theory. *Human Relations*, 49(5), 621-641.
- Heraty, N. (2004). 'Towards an architecture of organisation-led learning', *Human Resource Management Review*, 14, p. 449-472
- Heraty, N. and Morley, M. (2002). 'Management Development in Ireland, The new organizational wealth', *Journal of Management Development*, 22(1), p. 60-82.
- Huber, G. P. (1991). *Organizational Learning: The Contributing Processes and the Literatures*. *Organization Science* 2(1): 88-115
- Huysman, M. (2000). An organizational learning approach to the learning organization. *European journal of work and organizational psychology*, 9(2), 133-145.
- Lam. A. (2004). *Knowledge, Learning and Organizational Embeddedness: A Critical Reflection*. In: Boonstra, J. (ed.)(2004), *Dynamics of Organizational Change and Learning*. Chichester: John Wiley and Sons.

- Martens Dias, Sonja (2001). Herziening van de kleurentest. Erasmus Universiteit Rotterdam, stageverslag
- King, A.W. & Zeithaml, C.P. (2003). Measuring Organizational Knowledge: A Conceptual and Methodological Framework *Strategic Management Journal* 24:763-772.
- Lant, K. & Mezias, S.J. (1992). "An Organizational Learning Model of Convergence and Reorientation" *Organization Science* 3(1):47-71.
- Metselaar, E.E. (1997). *Assessing the willingness to change; construction and validation of the dinamo*. Amsterdam: VU.
- Mintzberg, H. & Westley, F. (1992). Cycles of organizational change. *Strategic Management Journal, Vol. 13, Special Issue Themes in Strategy Process Research* (Winter, 1992), 39-59.
- Kets de vries, M. (1996). The human side of downsizing. *European Management Journal, 14*(2), 9.
- Pettigrew, A.M. (1975). Towards a political theory of organization intervention. *Human Relations, 28*(3), 191-208.
- Prochaska, J.O., Diclemente, C.C. & J.C. Norcross, (1992). In search of how people change: applications of addictive behavior. *American Psychologist, 47*(9), pp. 1102-1114.
- Seijts, G.H. & Latham, G.P. (2005). Learning versus performance goals: When should each be used?. *Academy of Management Executive, 19*(1), pp. 124-131.
- Sminia, H. & A.T.M. van Nistelrooij (2004) *Embracing the paradox in project management: managing tensions between two contrasting change strategies*, paper presented at the 20<sup>th</sup> EGOS Colloquium, Ljubljana, Slovenia, July 1-3, 2004.
- Van de Ven, A.H. & Poole, M.S. (1995). Explaining development and change in organizations. *Academy of management Review, 20*(3), pp. 510-540.
- Vera, D. & Crossan, M. (2004). Strategic leadership and organizational learning. *Academy of Management Journal, 23*(2), pp. 222-240
- Weick, K. & Quinn, R. (1999). Organizational Change and Development. *Annual Review of Psychology, 50*, pp. 361-386.
- Wierdsma, A. (2004). *Beyond Implementation: Co-creation in Change and Development*. In: Boonstra, J. (ed.): *Dynamics of Organizational Change and Learning*. Chichester: John Wiley and Sons.