

Neuroleadership and an Advanced Learning Organization

Barbara Grah and Prof. Vlado Dimovski

University of Ljubljana, Faculty of Economics

Ljubljana, Slovenia

Abstract

The world is constantly changing and to survive on the long run, organization needs to create, or at least adapt to new trends. In order to do so, organization must learn on a constant basis, which is a main characteristic of the learning organization. The undeniable fact is that learning takes place through individuals, more specifically, their brains, and neuroscience studies how our brains work. Neuroleadership is a young discipline, implicating the findings of neuroscience to leadership domain. Connections between two interdisciplinary fields, a learning organization and neuroleadership, offer concrete advices how to implement such an advanced learning organization in practice, and therefore overcome the critics of a learning organization construct.

Introduction

Due to constant changes in the world around us and the era of knowledge we are living in, it is crucial for a leader to be able to enhance the brain usage and leverage the learning, to keep the pace with the world and stay competitive on the long run. Therefore learning must take place on all levels of an organization on a constant basis. Such organization can be identified as the learning organization. An undeniable fact is that everything a human does, feels or thinks is stored in his brain, and consequently it is of high importance that a leader understands how human brain function, which serves him as a basis for enhancing the employees' brain in a positive way. Neuroscience answers how our brain works and the implications of neuroscience findings into business and management areas is a focus of an emerging field of neuroleadership. By implementing the neuroleadership principles to learning organization, leaders can improve learning capabilities and keep their organizations in line with, and co-create the trends.

Learning organization

Senge (1993), who popularized the term learning organization in 1990, defines a learning organization as an organization, where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. In addition, he introduces five interrelated disciplines, crucial for learning

organization: a) personal mastery, b) mental models, c) building a shared vision, d) team learning, and e) systems thinking. Since then, several other definitions and models of learning organization were introduced, and some of them are presented in Table 1. Continuous learning is identified as the main characteristic of different definitions and models, and Senge's definition is the one that is most often used.

Table 1: Selected learning organization definitions and models

Garvin	1993	Learning organization is skilled at five main activities; (1) systematic problem solving, (2) experimentation with new approaches, (3) learning from own experience and past history, (4) learning from the experiences and best practices of others, and (5) transferring knowledge quickly and efficiently throughout the organization.
Miller Hosley, Lau, Levy, & Tan	1994	A competitive learning organization is a continuously adaptive enterprise that promotes focused individual, team and organizational learning. This is achieved through satisfying changing customer needs, understanding the dynamics of competitive forces and encouraging systems thinking.
Garrat	1995	Learning organization is linked to action learning process, where it releases the energy and learning of the people in the hour-to-hour, day-to-day operational cycles of business.
Goh	1997 2003	Five strategic building-blocks of a learning organization are: (1) clarity of mission and vision, (2) leadership commitment and empowerment, (3) experimentation and rewards, (4) effective transfer of knowledge, and (5) teamwork and group problem solving.
Dowd	1999	Learning organization is a group of people dedicated to learning and improving forever.
Hall	2001	Learning is how people gain knowledge; therefore the learning organization is the one, where the culture is maximized to increase knowledge transfer.
Lewis	2002	Learning organization is an organization where employees are continually acquiring and sharing new knowledge, and are willing to apply that knowledge in making decisions or performing their work.
Dimovski, Penger, Škerlavaj, & Žnidaršič	2005	The FUTURE-O molecular model of learning organization has seven elements; (1) laying the foundations for learning organization's reengineering process, (2) building of supporting elements, (3) planning function – strategy development and objectives identification, (4) leadership process and creation of knowledge sharing organizational climate, (5) forming and implementing the learning organization model, (6) monitoring the process of reengineering and evaluating the results, (7) anchoring the changes and the consolidation of improvements towards the learning

		organization.
Moilanen	2005	Learning organization is a consciously managed organization, with learning as a vital component in its values, visions and goals, as well as in its everyday operations and their assessment.
Daft & Marcic	2011	Competitive advantage can be gained by increasing the capacity for employees to learn. All employees in learning organization are engaged to experiment, change, improve, and learn. Focus is on problem-solving instead of efficiency. Needed adjustments, which promote continuous learning, are: (1) leadership, (2) strong, adaptive culture, (3) participative strategy, (4) team based structure, (5) employee empowerment, and (6) open information.

Source: Modified from Armstrong & Foley, (2003); Daft & Marcic, (2011); Dimovski, Penger, Škerlavaj, & Žnidaršič, (2005); Garvin, (1993); Goh & Richards, (1997); Goh, (2003); Hall, (2001); Jamali & Sidani, (2008); Miller Hosley, Lau, Levy, & Tan, (1994); Weldy & Gillis, (2010); Yeo, (2005)

In the last decade the popularity of a learning organization construct began to fade due to critics regarding the fact that there is still no generally accepted agreement how to implement the learning organization in practice (Cavaleri, 2008). In searching for the answer how does an organization learn, Hedberg claims that organization does not have the brain, but has cognitive systems and memories at its disposal, through which certain behavior, mental models and values are retained, resulting in co-influencing the learning of individuals and storage of new knowledge by organizations, occurring in the form of manuals, procedures, symbols, rituals and myths (Hedberg, 1981; Romme & Dillen, 1997). This is why we propose neuroleadership principles, which explain how to utilize human brain on a higher level and in addition enhance collaboration, to be included and obeyed in advanced learning organizations, as all learning takes place through individuals.

Neuroleadership

The term neuroleadership was first used by David Rock, who defines it as a discipline exploring how leader and followers think, with the emphasis on four main leadership domains; a) ability to solve problems and make decisions, b) ability to regulate emotions, c) ability to collaborate with others, and d) ability to facilitate change (Rock, 2010). Neuroleadership principles aim to improve employees' level of thinking and metathinking and enable people to see new perceptions on their own and not to brain wash or manipulate employees. As this is a young, emerging field, new models are introduced on a regular basis.

Prefrontal cortex (PFC) is a part of our brain, responsible for conscious **problem solving and decision making**. Rock (2009), identifies six PFC limitations people should be aware of to improve conscious mental performance and make better decisions; a) human energy is limited and PFC is a highly energy demanding part of our brain, b) human is able to hold and manipulate a limited number of information at any point of time, c) PFC can perform

accurately only one conscious process at a time, d) avoid distractions by activating ventrolateral PFC, which inhibits responses when performing important operations; e) human performance is optimal at a reasonable stress level and f) switching from conscious processes and activating the subconscious brain is advised for overcoming the limitation in creative situations.

Emotions play very important role in our thinking and learning processes and understanding how emotions and reason interact and its careful and intelligent usage is an art (Kunnanatt, 2008). Therefore leaders should be aware of emotional and cognitive action inside their and employees' brain, and be able to **regulate emotions**. As Gordon and colleagues claim, human brain is organized to minimize danger and maximize reward (Gordon, Barnett, Cooper, Tran, & Williams, 2008). When a person is over aroused, functioning of PFC and metathinking are lowered, which more likely causes negative responses and misinterpretations (Rock, 2009). When dealing with emotions, human can a) express it, b) suppress it, c) label it and make a cognitive change, or d) reappraise it and change its interpretation (McRae et al., 2009; Ochsner & Gross, 2005; Rock, 2009).

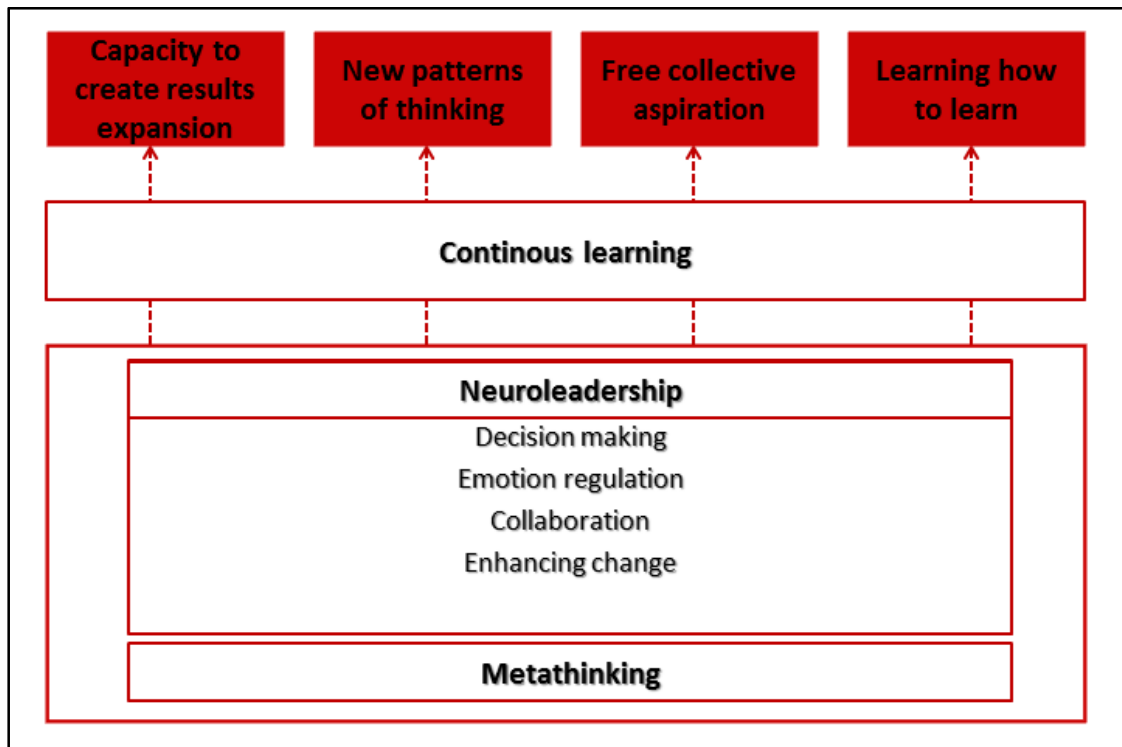
Feeling safe among people, the sense of fairness, and the sense of status are social needs that influence human **collaboration**. According to Eisenberger, Lieberman and Williams (2003) social exclusion activates similar brain regions as physical pain, and good reputation activates reward-related brain areas, therefore obtaining a good reputation or avoiding a bad one is a powerful motive for human actions (Izuma, 2012). Furthermore friends help individual to think better and understand other perspectives, meanwhile human usually disregards opponent's ideas (Rock, 2009).

Human brain register change as a threat, which leads to fear response, and draws energy further away from PFC. Therefore a repeated attention or own insights are needed to overcome brain's resistance to **change** and a leader's job is to create the environment that will support insights and metathinking abilities. It is not useful for leader to think instead of people and tell them what to do, since everyone has unique brain architecture and a way of thinking (Rock & Schwartz, 2006).

Neuroleadership implication to learning organization

As previously stated, a learning organization is basically an organization that enables continuous learning. Learning can be leveraged by understanding how human's brain works to enhance the level of the brain usage, by overcoming limitations of PFC, encouraging metacognition and taking other perspectives, regulating emotions, enhancing collaboration and facilitating change. Therefore for creating and maintaining an advanced learning organization, implications of neuroleadership should be included at its core, as presented in Figure 1.

Figure 1: Framework of an advanced learning organization



Researchers of the learning organization construct deal with the practical question how to create and improve the learning capacity in an organization (Easterby-Smith & Lyles, 2011). On the other hand, neuroleadership offers concrete advices for leaders how to improve human thinking and learning processes through enhanced metacognition based on the findings of neuroscience, focusing on the four key areas; decision making, emotion regulation, enhancing collaboration and influence and enhancing change, so there is a direct link between those two fields.

Since PFC is responsible for our conscious thoughts and decisions made (Rock, 2009), overcoming the limitations of PFC improves our conscious decision making and therefore our conscious learning process. According to Jarvis' (2007) learning is the process of transforming our experiences, therefore it occurs through constantly interaction of cognition, action, and emotion. As emotions often embody unconscious knowledge (Hubert, 2010) integration of emotions into learning process and their regulation is crucial. Furthermore the organization that is able to increase collaboration in terms of quantity and quality of relations between employees is likely to increase productivity, as employee perceives more people as friends and less as opponents which enables individual to see things through others' perspectives, and provides support for reappraisal, new insights and metathinking to happen (Rock, 2009), which altogether enrich the learning process. To facilitate change leader should create an environment suitable for insights to happen and activating metathinking, e.g. by observing individual's thinking and focusing an individual to think about his thinking and to make him see things he did not see before (Rock, 2009). To implement changes, people need

to learn and on the other hand, people also learn from change, since change allows us to view and act on the matter with different lenses. It is important how people analyze and interpret changes and learn from the experience. Therefore facilitating changes and thinking about it is crucial, since changes can be valuable input, as well as output of the learning process. We strongly believe that leader should understand the basic principles of the brain functions, conscious, as well as unconscious ones, and their job is on one hand to increase the level of employees' thinking according to neuroleadership principles, and on the other hand to transfer the knowledge and understanding of neuroleadership principles to employees.

Conclusion

In an advanced form of a learning organization, a leader acts according to neuroleadership principles and enhances the level of human knowledge and learning through understanding the roles of metathinking and decision making, emotion regulation, enhancing collaboration and facilitating change and thus allowing employees to constantly challenge status quo and introduce new or advanced products and procedures on a regular basis. Due to the fact that this is a conceptual paper, proposed framework needs to be empirically tested, which together with the possibility of potential oversimplifications, yet unknown in the emerging field neuroleadership area, present the main limitations of this paper.

References:

- Armstrong, A., & Foley, P. (2003). Foundations for a learning organization: organization learning mechanisms. *The Learning Organization*, 10(2), 74-82.
- Cavaleri, S. A. (2008). Are learning organizations pragmatic? *The Learning Organization*, 15(6), 474-485. doi: 10.1108/09696470810907383
- Daft, R. L., & Marcic, D. (2011). *Understanding Management*. South-Western: Cengage Learning.
- Dimovski, V., Penger, S., Škerlavaj, M., & Žnidaršič, J. (2005). *Učeča se organizacija: ustvarite podjetje znanja*. Ljubljana: GV založba.
- Easterby-Smith, M., & Lyles, A. M. (2011). The Evolving Field of Organizational Learning and Knowledge Management. In M. Easterby-Smith & A. M. Lyles (Eds.), *Handbook of Organizational Learning and Knowledge Management* (2nd ed. ed., pp. 711). West Sussex: UK: John Wiley & Sons.
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does Rejection Hurt? An fMRI Study of Social Exclusion. *Science*, 302(5643), 290-292.
- Garvin, D. A. (1993). Building a Learning Organization. *Harvard Business Review*, 74(4), 78-91.
- Goh, S., & Richards, G. (1997). Benchmarking the Learning Capability of Organizations. *European Management Journal*, 15(5), 575-583.
- Goh, S. C. (2003). Improving organizational learning capability: lessons from two case studies. *The Learning Organization*, 10(4), 216-227.
- Gordon, E., Barnett, K. J., Cooper, N. J., Tran, N., & Williams, L. M. (2008). An 'integrative neuroscience' platform: applications to profiles of negativity and positivity bias. *Journal of Integrative Neuroscience*, 7(3), 345-366.
- Hall, B. P. (2001). Values development and learning organizations. *Journal of Knowledge Management*, 5(1), 19-32.

- Hedberg, B. L. T. (1981). How organizations learn and unlearn? In P. C. Nystrom & W. H. Starbuck (Eds.), *Handbook of Organizational Design* (pp. 3-27). Oxford: Oxford University Press.
- Hubert, M. (2010). Does neuroeconomics give new impetus to economic and consumer research? *Journal of Economic Psychology*, 31(5), 812-817. doi: 10.1016/j.joep.2010.03.009
- Izuma, K. (2012). The social neuroscience of reputation. *Neurosci Res*, 72(4), 283-288. doi: 10.1016/j.neures.2012.01.003
- Jamali, D., & Sidani, Y. (2008). Learning organizations: diagnosis and measurement in a developing country context: The case of Lebanon. *The Learning Organization*, 15(1), 58-74.
- Jarvis, P. (2007). *Globalisation, Lifelong Learning and the Learning Society : Sociological Perspectives* (Vol. 2). Oxon: Routledge.
- Kunnanatt, J. T. (2008). Emotional intelligence: theory and description: A competency model for interpersonal effectiveness. *Career Development International*, 13(7), 614-629.
- McRae, K., Hughes, B., Chopra, S., Gabrieli, J. D. E., Gross, J. J., & Ochsner, K. N. (2009). The Neural Bases of Distraction and Reappraisal. *Journal of Cognitive Neuroscience*, 22(2), 248-262.
- Miller Hosley, S., Lau, A. T. W., Levy, F. K., & Tan, D. S. K. (1994). The Quest for the Competitive Learning Organization. *Management Decision*, 32(6), 5-15.
- Ochsner, K. N., & Gross, J. J. (2005). The cognitive control of emotion. *Trends in Cognitive Sciences*, 9(5), 242-249. doi: 10.1016/j.tics.2005.03.010
- Rock, D. (2009). *Your brain at work : strategies for overcoming distraction, regaining focus, and working smarter all day long* New York: HarperCollins.
- Rock, D. (2010). Impacting Leadership with Neuroscience. *People & Strategy*, 33(4), 6-7.
- Rock, D., & Schwartz, J. (2006). The neuroscience of leadership. *Strategy + Business*, 43, 70-79.
- Romme, G., & Dillen, R. (1997). Mapping the Landscape of Organizational Learning. *European Management Journal*, 15(1), 68-78.
- Senge, P. M. (1993). *The fifth discipline: the art and practice of the learning organization*. London: Cebtury Business.
- Weldy, T. G., & Gillis, W. E. (2010). The learning organization: variations at different organizational levels. *The Learning Organization*, 17(5), 455-470.
- Yeo, R. K. (2005). Revisiting the roots of learning organizations: A synthesis of the learning organization literature. *The Learning Organization*, 12(4), 368-382.