Unlearning and Forgetting for Sustainable Development of Contemporary Organizations: Individual Level

Individuals who have stopped learning and forgot unsustainable behaviour and thinking are useful for organization sustainability. Individual unlearning and forgetting for sustainability is deep and related to tacit knowledge. And this is very important for organizational knowledge management.

**Keywords:** unlearning, forgetting, sustainable development, organizational learning, sustainability knowledge.

Introductio


This means that sustainability principles, dimensions and indicators need to be...
integrated into every strategy and every action plan. But as S. Bell and S. Morse (2003) state, sustainability planning is just a technical means. For the process to go to practice (to become the theory in use) it should be desirable and understandable for everyone in the organization: for responsible leaders, authorities and managers in particular. According to the authors, people reject things they do not know or do not understand. Appealing to this, P. Senge (2008), S. Bell and S. Morse (2008), P. Juceviciene and V. Burksiene (2009; 2012) offer organizational learning for sustainable development as an appropriate measure to set awareness and understanding of the concept within the organization.

Therefore, successful contemporary development requires learning and gaining of new knowledge from one side and forgetting the old knowledge or unlearning things that do not math reality from the other side. In the context of sustainability it is important both to forget unsustainable knowledge and behaviour and to stop learning to think and act in ways that do not help turning to sustainability.

A number of authors analyze the importance of unlearning for contemporary organizations, which strive to adapt to the rapidly changing environment. The first articles concerning unlearning and forgetting appeared in 1980’s. A number of different aspects of the topic are revealed by E. W. K. Tsang and other authors (Tsang, Zahra, 2008; Tsang, 2008; Becker, 2008; Zahra, Abdelgawad, Tsang, 2011). The authors argue that unlearning for permanent change of modern organizations is as important as organizational learning. However, they emphasize that the concept is still little researched in scientific papers. And in empirical studies in particular. Besides, the authors still disagree whether unlearning and forgetting should be regarded as synonymous or as separate processes which require different management. There are also some authors absolutely opposing to unlearning (Howells, Mitev, Scholderer, 2010). In spite of this, no one has been denying that rapid changes for sustainable development require changes in existing behaviours, beliefs and knowledge. And appropriate management may help faster to achieve sustainable behaviour, understanding and knowledge and hence the general sustainability in organizations.

A global change of the world, in accordance with the provisions and principles of sustainability, is meant as the most significant change in a contemporary society. The author of this paper (see Burksiene, 2011; 2012) argues that appropriate cognitive and behavioral knowledge and systemic thinking are very important for learning for sustainable development. Thus useless (and maybe destructive) cognitive and behavioral unsustainable knowledge must be replaced with new cognitive and behavioral knowledge based on sustainability. Linear thinking must be replaced with systemic thinking based on ability to cohere three key areas of sustainable development: economic, social and environmental to the unit of a triple bottom line. This knowledge change should be promoted both by organizational learning and by organizational unlearning and forgetting on all levels (individual, group and organization) as well. However, as already mentioned, the concept of unlearning and forgetting is still little studied. And in the context of sustainable development in particular. Most papers analyze the topic only on organizational level. So the concept also
lacks analyses on the individual level. Further and detailed research of the topic is of great importance not only for the concept itself, but for the organization managers, who are responsible and need to be aware of all abilities and restrictions for the organization to turn to sustainability. And individuals in an organization play a crucial role in this process. Therefore studying and revealing different aspects of unlearning and forgetting would be useful for developing appropriate managerial actions and measures for organizational transformation to sustainability.

Therefore the paper deals with the research question what aspects of individual unlearning and forgetting for sustainable development assert in a contemporary organization?

The research object: aspects of individual unlearning and forgetting for sustainable development of the organization.

The aim is to reveal aspects of individual unlearning and forgetting in the context of sustainable development of contemporary organizations.

Objectives:
1. To analyse theoretical aspects of unlearning and forgetting.
2. To present the essence of organizational learning for sustainable development.
3. To reveal aspects of individual unlearning and forgetting in the context of sustainable development of contemporary organizations.

Methods. The method of scientific literature analysis was used to disclose the essence and aspects of organizational unlearning and forgetting. Organizational learning for sustainable development was also grounded with this method. Aspects of individual unlearning and forgetting in the context of organizational learning for sustainable development of a particular organization were highlighted through a structured interview. The nine experts’ group was involved into the experiment of organizational learning for sustainable development while developing a sustainable development strategy for Neringa municipality in Lithuania (Burksiene, 2012). The experts were asked to name sources they gained sustainability knowledge from and to describe, if it was difficult to change behaviour to the sustainable one (to forget and unlearn unsustainable behaviour and knowledge). The responses were analyzed in the context of theoretic unlearning types.

Structure. The article consists of two parts. The first part, based on the scientific literature analysis, presents definitions and concept of unlearning and forgetting as well as relation between unlearning, forgetting and learning. The essence of organizational learning for sustainable development is presented in the second part. This part also reveals aspects of individual unlearning and forgetting in the context of organizational learning for sustainable development.

1. Theoretical aspects of unlearning and forgetting

1.1. Concept of unlearning and forgetting

The modern global world belongs to the knowledge and organizational society. The abundance of knowledge and possibilities of their use leads to turbulent changes to which individuals, organizations, cities, regions and countries have to adapt. Complex, rapidly changing environment requires the introduction of the
principles of sustainability and sustainable development, as sustainable development the only can help the world to cope with global existential problems. This requires creation of new knowledge or modification of the existing ones. In other words there is a need to forget old knowledge and to stop learning useless things. Therefore organizations must demonstrate exceptional flexibility in creating, combining and adapting knowledge, integrating them into effective strategies. In this case unlearning and forgetting inefficient, outdated and no longer actual things becomes a crucial tool or measure for the success of organizations. E. W. K. Tsang and S. A. Zahra (2008) argue that organizational unlearning and forgetting becomes an important means for the successful adaptation of the organization to the changing environment. D. Hislop, S. Bosley, C. R. Coombs and J. Holland (2013) argue that the ability of people and organizations to stop learning based on old knowledge, behaviour or values can be significant and empowering impetus for change.

Some authors (Easterby-Smith, Lyles, 2003; Holan, Phillips, 2003; Hargreaves, 2007) consider unlearning and forgetting as synonymous terms. However, E. W. K. Tsang and S. A. Zahra (2008), S. A. Zahra et al. (2008), D. Hislop Bosley et al. (2013) distinguish them into different categories. They state that unlearning is a conscious, deliberate decision to give up useless, obsolete knowledge, and forgetting is unintentional, inadvertent loss of knowledge in the organization’s memory. D. Hislop et al. (2013) and N. Thomas (2011), following a detailed analysis of the literature, state that most authors analyze unlearning and forgetting only on the organizational level. According to some authors (Nonaka, Toyama, Byosere, 2001; Vera, Crossan, 2003; Zink, 2008; Burksiene, Juveiciene, 2010), organizational learning consists of individual and group learning. The author of this paper argues that individuals with basic sustainability knowledge (per se) are very useful organizational learning for sustainability (Burksiene, 2011; 2012). But there is still lack of research data on the individual level of forgetting as well as on the individual aspect of unlearning. Besides, E. W. K. Tsang et al. (2008) are not sure that unlearning and forgetting always produce positive results. They argue that in some cases unlearning and forgetting may not improve the organization’s performance; short-term negative effects may even occur.

As it was already stated in the paper, there is no common agreement how to treat the terms of unlearning and forgetting. Discussions also arise on relations of these terms to the learning. E. W. K. Tsang et al. (2008), D. Hislop et al. (2013) in their works concentrate only on unlearning not analyzing the peculiarities of forgetting. M. Easterby-Smith and M. A. Lyles (2003), while examining the forgetting, take also some emphasis on the concept of unlearning. P. M. Holan and N. Phillips (2003) emphasize a relation of forgetting to learning and argue that forgetting is a necessary condition for learning. The author of this paper argues that it is reasonable to believe that when the individual consciously or unconsciously stops learning things what are no longer in the case, he forgets that knowledge and beliefs after some time.

I. Nonaka and H. Takeuchi (1995), H. Tsoukas (2006) and W. H. A. Johnson (2007) argue that knowledge of beliefs, understanding and behaviour (tacit knowledge) is both subconscious and
conscious. Therefore, I argue that deliberate process of unlearning as well as accidental unconscious forgetting are also interrelated in the individual’s mental structure. And they both are also related to the learning.

1.2. Interrelation between unlearning/forgetting and learning

Unlearning and learning are offered to be coherent in different ways. D. Hislop et al. (2013), agreeing with E. Antonacopoulou (2009) and C. Argyris and D. Schön (1996), argue that unlearning can be regarded as a distinctive type of learning or learning that consists of unlearning. In some cases learning and unlearning occur together. However, sometimes learning begins after unlearning. But according to S. A. Zahra, S. G. Abdelgawad and E. W.K. Tsang (2011), unlearning cannot automatically turn to learning, because efforts are focused on unlearning and attention to learning can be inhibited. E. W. K. Tsang and S. A. Zahra (2008) also argue that unlearning can also be treated as isolated phenomenon, when the old knowledge and behaviour are not replaced with new ones. These authors also link unlearning with re-learning; this happens when an organization changes its behaviour or knowledge and starts perform newly. However, after some time it was understood that a new way of performance was not more effective than the old one. And the organization decided to turn back to the old model and re-learn previous behaviour and knowledge.

G. Krogh and J. Roos (1996) integrate unlearning to the organizational learning model as a prerequisite (Figure 1). The model distinguishes two learning levels: a lower level and a higher level. A lower learning level is associated with routine activities. Success programs are implemented and new management systems are created during this learning. A higher level of learning refers to adopting general mission, goals and instructions to the changed environment. New ways for prescriptions, new abilities to formulate and solve problems, new values are gained during this learning. The aspect of unlearning is then particularly important as it helps to forget and stop the use of even successful programs of the past, which have become useless. The lower level learning can be understood as single-loop learning and the higher level reflects double-loop learning.

However, it should be stressed that although the model includes learning and unlearning, they are different processes requiring different skills and different managerial factors. According to S. A. Zahra et al. (2011), the transition from unlearning to learning requires different ideas and knowledge. This is a real challenge for knowledge managers as it is important to distinguish between useful and useless knowledge; it is important to predict the need for new knowledge and to give up useless ones. It is also necessary to feel the relationship between these processes and to pursue an active supervision and management of knowledge changes.

Individual unlearning is required or in other words “organizational unlearning is being rooted in and emanating from individual unlearning” (Hislop et al., 2013, p. 8). Individual unlearning means that individuals of the organization personally stop to carry out activities, which are based on existing but no longer valuable or useful knowledge. Organizational unlearning occurs when an organization changes its formalized knowledge or operational systems to the new ones.

N. Thomas (2011) offers to analyse individual and organizational processes of unlearning separately. Most of the papers are focused on organizational unlearning. According to D. Hislop et al. (2013), analyses of individual unlearning are still missing as “individual level unlearning to be a typically difficult, challenging and time consuming process” (Hislop et al., 2013, p. 9). Therefore, this paper analyses unlearning and forgetting on individual level arguing that unlearning and forgetting are interrelated in between as well as with learning.

### 1.3. Unlearning and forgetting on individual level

D. Hislop et al. (2013, p. 12), citing J. Sinkula (2002), present two types of knowledge which can be unlearned by individuals: 1) axiomatic, which is defined as fundamental unquestioned beliefs and values and 2) procedural which is considered to be equivalent to C. Argyris and D. Schön’s concept of ‘theory in use’, referring to the tacit knowledge that shapes the way people act. Both types of unlearning could be also related to forgetting which is
defined by D. Hislop et al. (ibid) as unconscious or unintentional loss of knowledge.

The authors (ibid) also distinguish and analyse two types of individual unlearning from R. Rushmer and H. Davies (2004): wiping and deep unlearning (see Table 1).

Wiping is a process of unlearning on operational level that is imposed externally, is deliberate, conscious and focused on a narrow practice or activity and requires a person to consciously give up the old way of thinking and acting. The process is inspired by evolutionary, continuous and incremental or small scale changes. Conscious giving up is more related to unlearning as it is defined by D. Hislop et al. (2013).

According to D. Hislop et al. (ibid) deep unlearning is a radical form of unlearning that occurs rapidly as a result of an individual experience with unexpected outcomes. And the outcomes make significant impact on the individual leading to question his/her values and beliefs. Deep unlearning is accompanied by challenging emotions (anxiety, fear or confusion). Therefore deep unlearning involves the unlearning of values and assumptions in contrast to wiping. Authors also state that deep unlearning is similar to reinventive unlearning, when beliefs and routines have been changed in response to a rapid environmental changes and formative unlearning, when new beliefs and knowledge are combined with incremental changes. Deep unlearning is also defined as transformative unlearning. The process is deeply emotional and challenging as it brings individual’s values, knowledge and practices into question and to giving up some core values. Agreeing with M. Easterby-Smith and M. A. Lyles (2003), P. M. Holan and N. Phillips (2003), A. Hargreaves (2007) it can be stated that this type of unlearning has features of forgetting (as it is defined by D. Hislop et al.).

D. Hislop et al. (2013), linking unlearning to learning suggest that wiping has parallels with single-loop learning, and deep unlearning – with double-loop learning.

M. J. Epstein (2008), M. G. Edwards (2009), V. Burksiene (2012) suggest that learning for sustainable development should be double – loop or even triple – loop learning or in other words deep and transformative. If to agree that the processes of learning and unlearning are interrelated, it can be suggested that for
successful organization’s change to sustainability both deep learning and deep unlearning should occur and be managed with separate but appropriate managerial measures on individual and organizational levels during the process of organizational turn to sustainable development.

2. Aspects of individual unlearning and forgetting in the context of organizational learning for sustainable development

2.1. Organizational learning for sustainable development

Sustainable development is no longer perceived as something new or unknown. Practically everyone has heard about the process. However, due to its complexity and uniqueness this global process is quite difficult to be managed. Scientists (Jepson, 2001; Bell and Morse, 2003; Ollson, 2009) agree that there is no one single universal method how to integrate sustainability principals in the organization, city, region or country’s developing system, therefore no unified decision is able to be made. According to S. Bell and S. Morse (2003), M. Bileisis (2009), differences in methods and measures depend both on who and how participate in the sustainable development process and on the context and personal experience. Authors emphasize uniqueness and specific peculiarities of every organization that affect the content of sustainable development and dimensions of specific areas.


M. G. Edwards (2009), W. Sheate (2010) analyzing learning for sustainable development define the process as transformative learning. According to M. G. Edwards (ibid), transformation means the general direction towards a more integrated and responsive forms of organizational sustainability. W. Sheate (ibid) states that transformative learning is considered as appropriate if striving to responsible behaviour for environment. M. G. Edwards (ibid) defines double-loop learning as a part of transformative learning for sustainable development. The author explains that during that learning individuals gain ability to reject personal values and accept societal or common values.

K. A. Wheeler (2007) argues that sustainability requires deep changes and also defines learning for sustainable development as deep learning. According to the author, deep learning helps to strive to changes of life style and sustainable society.

The author of this paper argues that organizational learning starts with creative personalities who, in response to the changes in the social environment, can start changes in a particular organization
(Burksiene, 2011; 2012). In the context of sustainable development those creative individuals intentionally or consciously gain cognitive sustainable development knowledge or tacit knowing as understanding and practical activities. According to H. Johnson and A. Thomas (2007), the individual sustainable development learning may go parallel to organizational learning when the person independently creates his/her personal knowledge or learns sustainable development as per se. This person, being the member of a particular organization, intentionally and/or consciously integrates and shares sustainable development knowledge and awareness in the organization. The role and importance of individual learning in organizational learning for sustainable development is agreed among different authors including the author of this paper (see Figure 2).

Therefore, understanding of the process of organizational learning for sustainable development and the role of individuals with the basic sustainability knowledge is important for the organization managers responsible for organization sustainable development.

2.2. Individual unlearning and forgetting for sustainable development

According to I. Nonaka and H. Takeuchi (1995), I. Nonaka, R. Toyama and P. Byosere (2001), P. Juceviciene (2007), all knowledge can be considered as tacit, explicit and implicit. According to I. Nonaka et al. (1995; 2001) SECI (socialization, externalization, combination and internalization) model, tacit and explicit knowledge as well as individual, group and organizational knowledge are used in the organizational knowledge creation, sharing or, in other words, in learning process. M. Rebernik and K. Širec (2007) while analyzing tacit knowledge, argue that this knowledge contain some components that hinder innovations and should be forgotten. Sustainable development is considered as a global innovation. Therefore, organizations should forget unsustainable behaviour and knowledge in order to become sustainable. Success mostly depends on the organization members who unlearned or forgot useless unsustainable knowledge and behaviour. In other words, the process of forgetting and unlearning in the context of sustainable development.
development is very important on individual level.

Tacit knowledge is related to the behaviour, understanding, values and attitudes. So it could be argued that individuals have to change their values and behaviour into sustainable. However, every organization has a variety of members with different provisions, attitudes, understanding and knowledge. Some organization members may fully accept unlearning and forgetting, while some may choose to forget and stop using only certain selected things. There are others who may want to stay stuck to the old behaviour and beliefs. So if the organization leaders decide to unlearn and forget the useless unsustainable knowledge for organizational changes, they and managers need to motivate all its members and choose the best ways of unlearning and forgetting. S. A. Zahra et al. (2011) see here some potential problems arguing that unlearning and forgetting in some cases can be painful and costly for the organization.

In order to avoid or reduce these problems, creative individuals with basic sustainable development knowledge, should be involved into the process of change for sustainable development of the organization. According to the author of this paper (see Burksiene, 2012), appropriate managerial factors enabling appropriate learning environment together with involved individuals who have basic sustainable knowledge and behaviours should foster the process not only of learning but also of unlearning and forgetting of useless knowledge and unsustainable behaviour.

The practical experiment was organized for the group of strategic planning in the administration of one of Lithuanian municipalities (Neringa municipality) to learn sustainable development and to integrate sustainable development knowledge into institution’s strategy (see Burksiene, 2012). Interview in order to evaluate basic individual sustainable development knowledge was made and results showed that eight of nine group members have gained cognitive and behavioural sustainable development knowledge individually and use this knowledge in everyday life both at home and at work (Burksiene, 2011).

Therefore, it can be argued that those members of the organization somewhen for some reason changed their routine behaviour (both at work and at home) into sustainable or in other words they forgot and unlearned old unsustainable cognitive and behavioural knowledge and changed them to sustainable ones.

The group members were asked to name sources of sustainable development knowledge gaining from. The responses revealed sources of cognitive knowledge. Respondents also described whether they faced any difficulties to change the old unsustainable behaviour into sustainable one (recycling, saving energy and paper, etc.) or in other words, if it was difficult to forget and unlearn in the context of sustainable development.

The findings to the first question suggest that eight of nine respondents did not learn sustainable development purposely. The knowledge was gained from environment, general studies, television and media. This suggests that the experiment group did not intend to consciously acquire sustainable development knowledge. However, it can be assumed that the acquired knowledge more or less impacted change of every individuals’ behaviour, beliefs and values. Therefore they had to forget and unlearn dysfunctional behaviours
and activities that had become incompatible with sustainable development.

Answers to the second question illustrate that respondents actually base on sustainable development in their beliefs and behaviours tacit knowledge, that are related to tacit knowledge. Only one of the nine respondents said that it was quite difficult to change unsustainable behaviour and actions (to forget or unlearn). Three individuals briefly responded that change of the behaviour (forgetting or unlearning) was not difficult with no further explanation. The remaining five responses were emotionally commented in details. Respondents stated that:

- There was no need to change behaviour. Always behaved in this way;
- Could not remember when started behaving in sustainable way;
- Always tried to behave sustainably;
- This way of behaviour has been embedded since childhood;
- Behaviour based on ecological motivation. Likes to behave in this way.

Relating those responses to the data in Table 1 it may be argued that they reflect deep unlearning (see Table 2).

Therefore, according to the above responses, and as it is grounded in the theoretical part of this paper, forgetting or unlearning of respondents is based on unexpected individual experience, sudden and typical for deep unlearning. Impact is significant both to the respondent’s behaviour and identity (tacit knowledge). All respondents also emphasized importance of the matter and significant emotional impact. Responses reveal values, attitudes and behaviours of group members and therefore are related to tacit individual knowledge and to unconscious forgetting or unlearning. Considering statements that rapid changes for sustainable development require changes in existing behaviours, beliefs and knowledge, the aspects of individual deep unlearning (and forgetting) for sustainability of the organization should be taken into account by organization authorities and managers.

### Table 2: Aspects of individual deep unlearning for sustainable development

<table>
<thead>
<tr>
<th>Category</th>
<th>Deep unlearning</th>
<th>Response/explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalyst</td>
<td>Unexpected individual experience</td>
<td>There was no need; always tried to behave/behaved sustainably; could not remember; embedded in childhood</td>
</tr>
<tr>
<td>Level/type of impact on individual (identity, values, knowledge, behaviour)</td>
<td>Typically significant – not only behaviour/knowledge questioned but also values and/or identity</td>
<td>Ecological motivation; likes to behave sustainably; always tried</td>
</tr>
<tr>
<td>Speed of unlearning</td>
<td>Typically sudden</td>
<td>Long lasting changes should be kept in one's mind. Statements that “always behave in this way” or “always tried to behave” as well as “since childhood” and “cannot remember” show that respondents do not remember the process of change and it means that change was quite sudden.</td>
</tr>
<tr>
<td>Extent of emotional impact/challenge</td>
<td>Typically significant</td>
<td>Likes to behave in this way; always behaved or tried to behave sustainably</td>
</tr>
</tbody>
</table>


responsible for organization development and changes. Appropriate managerial factors need to be developed and applied.

Overall, as D. Hislop et al. (2013) emphasise, there is a lack of empirical studies on deep unlearning in general, therefore further research is also necessary for deep unlearning in the context of sustainable development.

Conclusions

Some authors distinguish unlearning and forgetting as two different processes. They state that unlearning is a conscious, deliberate decision to give up useless, obsolete knowledge, and forgetting is unintentional, inadvertent loss of knowledge in the organization's memory. Unlearning and forgetting are also argued to be relevant to organizational learning. There are authors (including the author of this paper) considering unlearning and forgetting to be synonymous terms.

Unlearning is analysed more than forgetting but both processes still lack further empirical research; on individual level in particular. Unlearning and forgetting may be very useful and valuable managerial tools or measures for the organization's change to sustainability. However there are too few research in the field of unlearning and forgetting in the context of sustainable development.

Organizational learning for sustainable development is double or triple-loop and is named as deep learning. Considering the results of the empirical research, presented in this paper, individual unlearning and forgetting in the context of sustainable development of the organization is also deep and mostly related to tacit knowledge (behaviour, beliefs and values). The process is of great complexity and requires separate management organized by expert-managers. Appropriate management of unlearning and forgetting may help to achieve faster the general sustainability in the organization.

S. A. Zahra et al. (2011) argue that unlearning and forgetting are difficult to empower for developing countries with unstable politics and weak economy, which are subject to considerable influence of power and different stakeholders may face difficulties while changing routines, traditions, social and cultural norms. Since sustainable development requires global understanding and local operation it may be difficult for developing countries to integrate sustainability and change unsustainable understanding or behaviour. According to the authors, knowledge managers may face big challenges. Therefore, starting sustainable development in the organization with creative members who already have sustainable development knowledge, beliefs, values and behaviour would be appropriate and wise. Those individuals in I. Nonaka's et al. (2001) SECI (socialization, externalization, combination and internalization) process of organizational knowledge creation unconsciously or consciously may affect deep unlearning and forgetting of unsustainable activities on individual, group or even organizational levels.
References


37. Thomas, N. (2011). Towards a New Definition of Unlearning: Rethinking Individual Level Unlearning and its Implications for Practice Change. – Copyright. Department of Organizational Behavior Weatherhead School of Management Case Western Reserve University.


Unlearning and Forgetting for Sustainable Development of Contemporary Organizations: Individual Level

Valentina BURKŠIENĖ


The paper submitted: October 8, 2015
Prepared for publication: May 30, 2016