Levels of learning: hither and whither

Over the past five decades, there has been growing research interest in learning in and by organizations, both in quantity of publications (Bapuji and Crossan, 2004) and of reviews of the field (Kim, 1993; Örtenblad, 2002; Shipton, 2006; Argote, 2011; Easterby-Smith and Lyles, 2011). Yet, in spite of this activity, this field is still seen as characterized by conceptual confusion and terminological ambiguity, even as an “organizational learning jungle” (Huysman, 2000, p. 81; Lipshitz et al., 2007).

This conceptual confusion and ambiguity appears to be particularly pertinent in the case of conceptualizations of so-called higher levels of learning, despite attempts to impose a degree of theoretical order and coherence on some of these conceptualizations (Tosey, 2005; Visser, 2007; Chiva et al., 2010; Tosey et al., 2012). Table I displays 20 conceptualizations of levels of learning since 1963, without any pretense of completeness.

Not only the differences in number of levels and in the terminology-in-use are striking, but also the fact that the main conceptualizations and their theoretical antecedents all appear to have been firmly established in the 1960s and 1970s (Cyert and March, 1963; Bateson, 1972; Argyris and Schón, 1974). Finally, this is a field that is rich in conceptualizations, but rather poor in operationalization and empirical research, maybe because of the difficulty of measuring and analyzing deeper spheres of human thinking and acting.

In this special issue, we have brought together three contributions that fill some of these voids in research on organizational learning and the learning organization. The conceptual paper by Michele Rigolizzo, entitled “The LABS (learning as behaviors) framework for higher-order learning,” is concerned with providing greater conceptual clarity to concepts of higher-order learning. Theoretically, it is based on a wide array of insights from social and cognitive psychology and from educational theory, which the author brings together in the Learning as Behaviors (LABS) framework. Its underlying assumption is that higher-order learning involves the ability to “critically reflect on a domain, or sphere of knowledge” (Mezirow, 1991), whereby domain-specific knowledge and expertise is being built up and adapted in long-term memory on the basis of continuous professional involvement in and experience with that domain. The author then specifies four particular learning behaviors that are required (in this particular order) for the critical reflection involved in higher-order learning:

1. taking on a challenge;
2. attending to information;
3. ..., and 4. Yang's effect.

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This paper forms part of the special section “Levels of learning: hither and whither”, guest edited by Max Visser, Ricardo Chiva and Paul Tosey.
(3) forming meaningful connections; and
(4) repeated practice with feedback, whereby it is unlikely that all individuals are equally motivated to engage in all four learning behaviors at the same time.

These behaviors in principle are directly observable and may be operationalized in specific organization and work contexts. The main contribution of the paper thus lies in delineating the different steps involved in higher-order learning (seen as critical reflection) and in making these steps amenable to empirical observation and measurement.

<table>
<thead>
<tr>
<th>Level</th>
<th>Learning</th>
<th>Short run lrn.</th>
<th>Long run lrn.</th>
<th>Selected books and articles</th>
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Table I. Conceptualizations of levels of learning in organizations, 1963-2018
The conceptual paper by Alexander Kaiser, entitled “Learning from the future meets Bateson’s levels of learning,” is concerned with the question, to what extent it is possible to integrate learning from the past and learning from an envisioned future, in Bateson’s (1972) framework of levels of learning. Theoretically, it is based on Bateson’s distinction between learning levels 1, 2 and 3, which the author conceptualizes for both learning from past experiences and learning from an envisioned future, leading to six learning modes. As a next step, the author explores the possible applications of the concept of Ba to these six learning modes. Ba is a Japanese concept that refers to a “shared space” or “context” for knowledge and learning processes (Nonaka et al., 2006, p. 1185). The author distinguishes between a past-experience Ba and future-experience Ba and also defines an overall learning Ba for meta-learning, denoting the “ability to choose an appropriate and optimal learning mode or combination of learning modes for a specific situation.” Providing a practical example from a coaching process, the author sketches various implications and future research directions of his approach for exploring learning in systemic and experiential coaching processes, in innovation management, and in more inward directed self-reflection, in which consciousness and emotions play an important role. The main contribution of the paper, however, lies in the attempt to “link the important but still underexplored aspect of learning from the future to the complex and multi-faceted work of Bateson”.

The empirical paper by Elise Marcandella and Khoudia Gueye, entitled “Tensions in collaborative innovation projects and higher-level learning,” is concerned with learning at the front-end of a collaborative innovation project (CIP), geared at designing and implementing a plan to reduce micro-pollutant emissions in an urban community, and involving 17 participants from nine private and public sector organizations. Theoretically, these organizations are viewed as “activity systems” that experience equivocality when having to work together in the CIP, which may lead to tensions that can be solved through expansive learning (Engeström, 2001). Using a longitudinal qualitative case study, the authors find that “dynamics of learning appear from the moment when project managers and project members of the cluster become aware of the limitations of their own tools. This awareness enables both project managers and researchers to co-construct new management tools to improve collaboration and then slowly invite partners into this learning process.” This expansive learning process bears close resemblance to Bateson’s (1972) learning level III, “where a person or a group begins to radically question the sense and meaning of the context and to construct a wider alternative context” (Engeström, 2001, p. 138), which, as the authors make clear, is essentially a collective, collaborative endeavor. The main contribution of the paper thus lies in the ways it links CIPs, expansive learning and higher-level learning, and in its explicit attention to the social and relational nature of these learning processes.

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