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A Process Turn in Organizational Learning (OL) Theory to Meet Contemporary Challenges: A Critical Review and New Horizons

[General track].

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Abstract

Purpose – In this paper we explore and discuss organizational learning from a process perspective with the aim of proposing new possibilities for explorations of learning in organizations through the concept of symmathesy.

Design/methodology/approach – As this paper is conceptual, no data has been utilized. Rather, we discuss the opportunities of the concept of symmathesy in relation to organizational learning

Findings – We have found a possibility in broadening the research field of organizational learning through the concept of semmathesy from a strong process orientation. This provides an opportunity for new answers for contemporary challenges in organizations and on a global scale by enriching life-giving processes

Originality/value – We propose a synthesis of organizational learning and the concepts developed by Nora Bateson and proposition of organizational symmathesy. This synthesis can pave the way for a hearth of new understandings and theories of learning in organizational contexts

Key words – Organizational learning, Symmathesy, Warm data, Process philosophy, Strong process orientation, Living systems

Paper type – Conceptual paper

Introduction – contemporary challenges and new horizons

“When looking around the world today, as conscious human beings we might see the erosion of ecosystems that sustain life, the trash and plastic islands in our oceans, the declining insect populations, the shrinking of the world’s forests, climate change, soil degradation and polluted rivers. Then we might also see the volatile political climate, the worldwide social inequality, the increasing levels of stress, depression, and burnout, even among our young. Both our outer and inner landscapes are under great strain”

(Storm & Hutchins, 2019, pp. 3)

“They are living in a crazy universe. From the point of view of the people who started the mess, it’s not so crazy; they know what happened and how they got there. But the people down the line, who were not there at the beginning, find themselves living in a crazy universe, and find themselves crazy, precisely because they do not know how they got that way”

(Bateson G. , 1972, pp. 478)

“The mystery of life is not a problem to be solved, but a reality to experience. A process that cannot be understood by stopping it. We must move with the flow of the process. We must join it”

(Herbert, 1965, pp. 344)

This first quotation above is written by two thought leaders on sustainable and regenerative ideas and practices Laura Storm and Giles Hutchins and are opening this paper to the challenges of today and tomorrow. We then draw upon anthropologist and cyberneticist, Gregory Bateson, and through his exposition of the situation by characterizing the universe as foundationally crazy already in 1972, and then inviting us into novel thinking and to try to answer differently to the bulk of crisis we encounter today. The last quote points to our search for answers in the process theory and a search for answers about organizational learning in the research of Nora Bateson. To open the field of Organizational

Learning (OL) and further the novelty in the thinking, our research question is guided and inspired by a key question Bateson N. poses:

“How is it learning to be in its world?”

In our case *it* is the entity or construct named organization. We need this question to start thinking differently about learning and organizational learning. This question inspires us to think about emergence, becoming, responsiveness, context, temporality, togetherness, etc. By this paper, our hope is to inspire further studies and a possible contemporary relevance and renewal of the field of OL.

The individual and the social in OL – A brief overview

The research field of OL has undergone numerous expansions since it was first coined in the 1950’s and 1960’s and the field has already been the subject of a plethora of extensive literature reviews (See Huber, 1991; Jørgensen & Rasmussen, 2005; Easterby-Smith & Lyles, 2011; Pettit, Crossan, & Vera, 2017; Basten & Haamann, 2018; Elkjaer, 2021). In this section we wish to make a brief outline of prominent theories of organizational learning from two theoretical perspectives: The individual and social perspectives. This outline is by no means meant as an extensive literature review, but rather as a short recapitulation of prevalent theories of OL (Cohen & Sproul, 1996; Fulmer & Keys, 2004; Easterby-Smith & Lyles, 2011; Laursen & Stegeager, 2011; Hernes & Bévort, 2018, pp. 163-171) in order to establish a starting point for the process turn we propose in this paper.

The term ‘organizational learning’ first gained prominence in the writings of James G. March (Cohen & Sproull, 1996). In the seminal work, *A Behavioral Theory of the Firm*, organizational learning is defined as a decision process consisting of three phases: Adaption of goals, attention rules, and search rules (Cyert & March, 1963, pp. 123-125). Organizational learning, in this understanding, is thus an organization’s ability to adapt to the surrounding milieu. March (1991, 2008) expands this understanding in his later writings as the ability to balance processes of exploring new possibilities and exploiting the knowledge-at-hand:

“Exploration includes things captured by terms such as search, variation, risk taking, experimentation, play, flexibility, discovery, innovation. Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, execution”

(March, 1991, pp. 71)

Drawing on Cyert and March, as well as the works by Gregory Bateson and behavioral psychology (Shipton & DeFillippi, 2011), Chris Argyris and Donald A. Schön (1978, 1996) defined organizational learning as the process of detecting and correcting errors (single-loop learning) and the questioning and revision of governing values (double-loop learning). In other words, the members of any given organization can either solve problems by questioning the *what* or the *why* (Argyris, 1990, pp. 93-94). While double-loop learning bears a resemblance to what Cyert and March (1963, pp. 101-102) describe as Standard Operating Procedures, it also draws on Gregory Bateson's concept of deuterolearning – *learning how to learn* (Argyris & Schön, 1996, pp. 29; Bateson G. , 1972, pp. 159-176). Thus, for members of an organization to be able to learn in double-loops, they first need to develop an ability *to learn* (Argyris & Schön, 1996). Organizational learning in this view is “[...] *a continual, more or less concerted meshing of individuals images of their activity in the context of their collective interaction*” (Argyris & Schön, 1996, pp. 15). The understanding of organizational learning at an individual level has been expanded and applied in the fields of innovation management (Brix, 2019, 2021), learning in start-ups (Steiber, Alänge, & Corvello, 2021), and inter-organizational learning (Park, Stylianou, Subramaniam, & Niu, 2015; Reichenbach, Eberl, & Lindenmeier, 2021).

Another widely distributed understanding of learning is learning as situated in social contexts. This approach was pioneered in the 1990's by Jean Lave and Etienne Wenger with the concepts of situated learning and communities of practice (Lave & Wenger, 2003 [1991]; Wenger, 2004 [1998]; Lave, 2019). Learning, in this perspective, is understood as the mastery of practice through peripheral, legitimate participation (Lave & Wenger, 2003 [1991], pp. 31-33; Brown & Duguid, 1991). Consequently, learning is not only a matter of the individual's learning, but a result of the social interactions in and around practices. Wenger (2004 [1998], 2003; Wenger & Snyder, 2000) expanded on the concept of communities of practice by means of a deeper analysis of the parts that constitute the whole: Joint enterprise, shared repertoire, and mutual engagement in practice (Wenger, 2004 [1998], pp. 89-104). It is through the shared that practitioners learn and develop social practices together, and because it is shared it can over time become part of the shared culture through processes of reification (Wenger, 2004 [1998]). The concept of social learning has been expanded with studies of learning in chaotic environments (Hussain, Rossi, & Rynne, 2019) and stressful situations (Gustavsson & Lundqvist, 2021), transfer and learning in social contexts (Keller, 2011), the scaffolding method (Christensen, 2019), learning through professional networks (Schreurs, Van den Beemt, Moolenaar, & De Laat, 2019), and ethics in workplace learning (Hoel & Christensen, 2020).

While elements of individual and social learning theories have been utilized in process studies of organizations (see Hernes, 2008; Nicolini & Monteiro, 2017; Pettit, Crossan, & Vera, 2017) the concepts are not processual per se, as they are founded in other traditions such as socio-cultural theory (Lave & Wenger, 2003 [1991]; Wenger, 2004 [1998]), behavioral theory (Cyert & March, 1963; March, 1991, 2008) and behavioral psychology (Argyris & Schön, 1978, 1996). While these concepts are most definitely applicable to the solutions of contemporary problems, we do believe that a more radical understanding of the precedence of processes are a necessity in the pursuit of as of yet illusive solutions as elaborated on in the introduction to this paper.

Process turns in organizational learning

“A major opportunity in OL process theory still exists for researchers to see how these diverse [process]approaches emerge from common elements. Providing pathways to connect these diverse [process]areas will foster more robust OL theory”

(Pettit, Crossan, & Vera, 2017, pp. 491)

A process orientation in organizational leaning studies has not been absent but has played a minor role in the significant field of organizational learning research over the years. In the above quote, Pettit et al. invites researchers, through a critical review on organizational learning and knowledge processes to orientate us more towards a process understanding of learning in organizations. This, to deepen and broaden the field of OL and provide a more contemporary contribution to the field.

In this part of the paper the current state of process organizational learning is presented by one of many possible definitions of a process perspective on organizations and bridging it to OL theory through the perspectives of Pettit et al. as a steppingstone towards our contribution to a strong process view on OL.

A process orientation

A Process orientation has existed and been debated since before the early Greek philosophers and the position and perspective have gradually been enforced across philosophy, humanities and in social studies (Chia, 2003; Tsoukas, 2019, 2005; Helin, Hernes, Hjorth, & Holt, 2014; Langley & Tsoukas, 2017). It is the idea of understanding the world as an interconnected, circular flow of movement in time. An idea where the studies of emergence and the becoming of situation, actions and routines,

identities, organizations, and life in general is at the forefront of the research. An idea that we cannot measure and count the living world and that our division of the world into entities is purely arbitrary. Professor of communication and process theorist John Shotter wrote about research from a process perspective:

“We are always already engaged with the world; our thinking participates in its becoming and our descriptions are part of how it changes. We have no access to an outside neutral position, from which we can observe the world. Experiencing the world via performativity makes us leave theory as representation behind. In that sense, we acknowledge that as we participate in the research, we ourselves become someone, and are still actualizing a potential we yet do not know what is”

(Shotter, 2014)

Shotter called this process perspective “*witness-thinking*” which will become important to acknowledge as process researchers in organizational learning.

In the field of process organization studies, two distinct orientations have emerged over the years. These subdivisions in the field might be arbitrary, but they are convenient in the context of understanding our contribution to the field of OL. These two orientations are structured around the distinction between *strong* and *weak* process orientations (Bakken & Hernes, 2016; Jarzabkowski, Lê, & Spee, 2017). Our contribution in this paper can be said to represent the strong process orientation and, in that perspective, definitions are needed.

Weak and strong process orientations

If we take a departing point in process orientation as described above, a *weak* process orientation is weak in the sense that the a priori assumption is of the world as consisting of entities, whose interactions constitute processes (Bakken & Hernes, 2006). In this perspective, entities like individuals, are already existing prior to processes, and processes take place whenever individuals interact. They give shape to processes, while remaining intact throughout their participation in the processes (Bakken & Hernes, 2006). Another group of process studies fall into the category *strong* process orientation. The starting point is departing from the same definitions of process as the above, but seeing the whole world *as* process where entities, as far as they are seen to exist, are products of processes rather than existing prior to them (Bakken & Hernes, 2006). Entities are seen as temporary

manifestations of processes emerging in time. In this group of studies, we place our contribution to this paper.

Subsequently to defining a process orientation, we turn to our understanding of organizations in the field of process organizations studies. This definition is an important piece of work in our understanding of OL from a process perspective.

Process organization studies

In 1952 Herbert A. Simon met with a group of 30 scholars at a conference at Princeton University to discuss, for the first time, the “theory of organization” (Starbuck, 2003). Since then, the field has grown immensely and contributed to the understanding, development, and change of organizations across the globe. A part of this development in organization studies has taken place during the last five decades, debating the nature of process views and their contribution to, or enactment of organization and management theory (e.g., Pettigrew, 1987, 1997; Chia, 1999; Langley, 1999; Tsoukas & Chia, 2002; Styhre, 2004; Van de Ven & Poole, 2005; Carlsen, 2006). Some of these contributions, tend to draw their inspiration from the works of process philosophers such as Henri Bergson (1988 [1896], 1907), William James (1996 [1909]), and Alfred North Whitehead (1978 [1929], 1961 [1933], 1968 [1938]) For example, James and Bergson figure prominently in Tsoukas and Chia’s (2002) discussion of the notion of organizational becoming, Styhre (2004) draws upon Bergson in his discussion of knowledge, Carlsen (2006) draws largely upon James in his discussion of identities in organizations, and Chia (1999) makes considerable use of Whitehead and Bergson in his discussion of a metaphysical perspective on organizational change and transformation (Bakken & Hernes, 2006).

In this paper we use Hernes (2008) to help us define process organization studies, knowing that other nuances explicated by other scholars might be lost by this decision. We find that Hernes has a position in the field that allows us to make this choice.

What is organizations viewed from a process perspective? It is:

“[...] a more complex kind of thinking about organizations and organizing that reflect an understanding of the world as in flux, in perpetual motion, as continually in the process of becoming – where organizations are viewed not as “things made”, but as processes “in the making” “

(Hernes, 2008 in Langley & Tsoukas, 2010, pp. 1).

From a strong process view the last part of organizations as “processes in the making” has caught our attention when thinking about organizational learning. If organizations are not things nor stable entities, if we cannot talk about inside/outside the organization, and if learning is not defined by linear causality and transfer of knowledge is not possible, then what is learning in organizations?

A similar weighty supplement to the above definition is Weick’s work on movement from nouns to verbs:

“If students of organization become stingy in their use of nouns, generous in their use of verbs, and extravagant in their use of gerunds, then more attention would be paid to process and we’d learn about how to see it and manage it”

(Weick, 1979, pp. 44)

The turn from focusing on nouns in favor of verbs is especially prevalent in Weick’s argument, that studying *organizing* rather than *organization* should be the focal point of scientific investigations in organizational processes (Weick, 1974, 1979, 1995). This underpins the importance which Weick attributes to the flux of organizational life: That organizing is rather a matter of processes than entities.

OL Process theory

Finally, we move towards understanding Organizational learning from a process perspective. Little work has been done in understanding this perspective but in a critical review Pettit et al. (2017) tries to capture and map the field of research: “*Organizational learning is the process of change in individual and shared thought, emotion and action which is affected by and embedded in the institutions of the organization*” (Vera, Crossan, & Apaydin, 2011, pp. 154).

In their “search for learning”, they take the perspective on process organization studies as described above by adopting the Weickian tradition of focusing on ongoing interdependent actions (Weick, 1979, pp. 3) by individuals, groups, and organizations. Furthermore, Pettit et al. proposes a framework for understanding the dimensions of OL process types through the dimensions of *knowledge/learning emphasis* and *planned/spontaneous nature* (Pettit, Crossan, & Vera, 2017, pp. 484-485). Though they ascertain that process neither is learning as an entity nor as an outcome (not measure, not change in cognition and behavior), they still tend to present the current state of process studies on organizational learning from, what we categorize as a weak process orientation. They are still suggesting further

studies within identity work as a root construct for OL (e.g., individuals are not homogeneous even within themselves), etc. At the same time interesting and promising suggestions point in the direction of a strong process orientation e.g., understanding OL as a continuous and nonlinear process in time. This creates a gap for our contribution to the field of organizational learning; a processual turn inspired by Nora Bateson's concepts of learning in living systems.

Learning to be in the world – learning in organizations as living systems

In the prior sections of this paper, we have made a brief recapitulation of the field of OL and explicated strengths and shortcomings in the different views on learning organizations. It invites us towards researching OL from a strong process orientation and guides us towards overarching questions like *what is learning* and *what is organizational learning from a strong process orientation?* And what are the definitions and implications if we should challenge prior perspectives and understandings and introduce a more contemporary understanding of OL?

In search for answers to the above questions, we have come across the work of Nora Bateson. Nora Bateson is the daughter of anthropologist, cyberneticist, systems theorist and learning theorist Gregory Bateson and granddaughter of biologist William Bateson who pioneered studies of hereditary genetics. She is an award-winning documentary film director and the president of the Bateson Institute in Stockholm. Her work continues a very famous legacy of thoughts and ideas.

In her work, Bateson critiques her father and points to some problems with our current and general understanding of the concept “cybernetic systems”, and “systems thinking” in general. It tends to become too linear, in its causal logics. It is overly reduced, it cannot help us understand life, in all its complexity, inter-relatedness, and inter-dependency (Bateson N. , 2016). Furthermore, she points at the general use of cold data, mega data, and meta data to create and measure learning in organizations. She challenges this approach as being too narrow and look for new terms on learning – and asks the question of how we respond to living world, wherein information is not living (Bateson N. , 2022).

Bateson turns to a new metaphor to replace the concept of cybernetic systems, which is the concept of living systems inspired by the logics of life. In their book “The Systems View of Life” (2014) Physicist and Systems theorist Fritjof Capra and Professor in Biochemistry Pier Luisi reconnect all living to each other and as entities human become interconnected and entangled with nature. Similarly, organizations are nature. Everything is living process (Capra & Luisi, 2014). Drawing inspiration from this, Bateson N. investigates learning in living systems.

Warm data

During the last 10 years Nora Bateson and the co-researchers at the International Bateson Institute, have conducted warm data labs to try to identify learning in living systems. She asks the following questions:

- What is information?
- What is mutual learning?

Bateson N. establishes that we learn from many interconnected and transcontextual sources at the same time. Thus, contexts and relations are always multiple. The complexity of the interconnected sources that constitutes the environment of learning are always high, even when we focus on the tiniest aspects. Life is highly dynamic and dependencies are always interdependent. From the living systems view, she looks at the information she gathers in the warm data labs from daily life. General examples from the participants in these labs are for example zooming in and out from their breakfast table and investigating experiences such as what are the relationships you can perceive in that one banal moment of your day? The farmers, the deliveries, the packaging, the traditions of breakfast, your family history, the health of your body, the time of year, your sleep last night, your partner or kid's conversation, etc. (Bateson N. , 2022, pp. 14). From the living data collected, she coins the term “*warm data*” and defines it as: “[...] *information that is alive within the transcontextual relating of a living system*” (Bateson N. , 2022, pp. 14). Furthermore, she elaborates on warm data as being wiggly, unpredictable, sometimes invisible, and always wild. Warm data combines transcontextual utterances and expressions into the emergence of new insight. The emergence of learning. From the concept of warm data, Bateson N. continues her journey towards an emerging concept of learning. First, she asks the question: “*How do systems learn?*”, then changes it to: “*How is it learning to be in its world?*” (Bateson N. , 2022, pp. 103). This is, based on warm data, to guide the understanding of the process of becoming.

Symmathesy

In this process Bateson introduces a new term called “*symmathesy*” that explicitly addresses learning together in living systems. The word *symmathesy* is a combination of two Greek words. From words like *symbiosis* or *synthesis*, Bateson isolates the prefix “*syn*” or “*sym*” which implies togetherness. This togetherness is then combined with “*mathesi*” which denotes “*to learn*”. Together it becomes “*symmathesy*” which then denotes learning-together or together-learning. From nature, Bateson N. uses the example of the tree on the hill:

“A tree is learning to be on a hill; its trunk is at an angle to the hill, its branches reach toward the light away from other trees’ shadows, it grows in height according to the nourishment in the soil, and so on. The form of the tree is informed by the contextual and transcontextual mutual learning it is in with the other organisms it shares a hillside with. If you want the trunk to be at a 90-degree angle to the ground, instead of the angle the tree has found, the approach will be to manipulate the tree. To do so would, of course, upset the precarious balance the tree has found and other organisms living with the tree. It is better to ask, “How is it learning to be in its world?” and immediately notice how the perception moves from the tree to its contextual responsiveness. Is the crookedness in the tree? Or is it in the context?”

(Bateson N. , 2022, pp. 103)

A “symmathesy” is the the process of contextual, mutual learning through interaction (Bateson N., 2016, pp. 169). Symmathesy can also be used as a verb, “symmathesize”. This use means “[...] *to generate contextual mutual learning through the process of interaction between multiple variables in a living entity*” (Bateson N. , 2016, pp. 169).

If we were to consider the conceptual pair “parts and wholes”, symmathesy corresponds to “the whole”. The parts then need a new name, and Bateson N. suggests the Latin term “vita” or “vitae” in plural. Her definition of vita is “*Any aspect of a living entity that, through interfaces of learning, forms a larger living entity or symmathesy*” (Bateson N. , 2016, pp. 169). She gives a few examples, such as the members of a family, the bodily organs, or the flora and fauna in a forest.

What is learning in symmathesy?

Bateson N. calls the process of learning inter-learning or mutual learning. This is a process which occurs constantly and is ongoing, in the symmathesy (Bateson N. , 2016, pp. 169). So, to be living is to be learning mutually. It is no longer useful to isolate states, when is something part or when is something the whole, because we deliberately seek to do, what she calls transcontextual analysis (Bateson N. , 2016, pp. 170). This means that we must be able to accommodate and combine multiple descriptions of each variable in each system (this variable can be seen as a part, but it can also be seen as a whole in itself). To accommodate and combine these multiple descriptions requires flexibility and an ability to avoid impulses of either-or thinking. In short, an ability to perceive and navigate in paradoxes is essential in this sort of analysis.

Learning processes consists of interaction and communication processes. With her proposed concept of symmathesy, Bateson N. wants to highlight “[...] *the expression and communication of interdependency and, particularly, mutual learning*” (Bateson N. , 2016, p. 168). She suggests that contextual fields of simultaneous learning are necessary for life to develop and sustain, and for life to be understood in its totality and wholeness.

In Bateson N.’s thinking, the concept of learning has been stretched. It does not imply acquisition of knowledge in a linear progression of clear and distinct stages (Bateson N. , 2016, pp. 179). Bateson N. suggests that learning includes the entire living world as a context of learning. She also considers closely related terms such as co-evolution, but she has a reservation that this concept might connote “improvement”. Her preliminary definition of learning could possibly be: “*Learning in symmathesy is the perpetual process of positioning and repositioning, calibrating, shifting, and responding to responses within contexts of multiple, simultaneous interactions*” (Bateson N. , 2016, pp. 179). She points to some characteristics of learning in symmathesy in the following keywords:

Characteristics	Explanation
<i>Contexts</i>	“[...] <i>the living organism must position and reposition itself within its context of variables and interrelationships in order to survive [...] The contexts are variables that are learning together</i> ” (Bateson N. , 2016, pp. 179)
<i>Calibration</i>	“ <i>Complexity does not divide itself, and therefore life requires calibration within multiple streams of information and interaction [...] Learning is the process we are referring to here as calibration within variables of interrelationship</i> ” (Bateson N. , 2016, pp. 180)
<i>Bias</i>	“[...] <i>the bias forms differences. The bias could be thought of in terms of the ‘epistemology’ or the ‘Umwelt’ of the symmathesy [...] The perspective of a particular symmathesy gives it an outline, an interface, and an aesthetic through which to filter and frame, on an ongoing basis, the information it calibrates</i> ” (Bateson N. , 2016, pp. 180)

<i>Stochastic process</i>	<i>“There is pattern and there is also unpredictability [...] There is structure and there is process [...] The paradox that this combination forms is inherent and unsolvable. The contingency for life and therefore learning is that the tangles of relation, communication, and information between all the vitae of a symmathesy are simultaneous” (Bateson N. , 2016, pp. 181)</i>
<i>Play</i>	<i>“Play is the combined discovery and opportunity to embody new ideas [...] Acquisition of knowledge is a by-product of deeper learning [...] In other words, play is a process of learning to learn” (Bateson N. , 2016, pp. 181)</i>
<i>Boundaries</i>	<i>“[...] the boundaries are the differences, the areas of interaction, the communication interfaces that provide the contact, dependency, and bias of the ecology [...] The boundaries represent a paradox [...] The inclusion of time will blur the lines; the contexts are interactive and learning” (Bateson N. , 2016, pp. 182)</i>
<i>Time</i>	<i>“All living organisms, and the vitae of all living organisms, are revealed as existing within a context of mutual learning when time is taken into consideration” (Bateson N. , 2016, pp. 182)</i>

In the above presentation of the work of Nora Bateson, we are introduced to a range of concept from which she proposes that working with them (Symmathesy and an orientation towards warm data etc.) we create life-ing moments or designs for life needed in contemporary organizations.

This takes us to our final remarks and a proposed definition of Organizational Symmathesy.

Organizational symmathesy and proposed areas of further research

In this conceptual paper, we don't present original empirical data but try to present an original concept by synthesizing knowledge from the vast field of OL.

We orientate us towards a strong process orientation and introduces the thinking of Nora Bateson and her concepts of warm data and symmathesy as "learning-together" in living systems. We now try to answer the question: *How is an organization learning to be in its world.* From the concepts in this paper, we combine our analysis of the movement in the field, to make a proposed or provisional definition on Organizational Symmathesy. The result is the following definition:

In any given context, Organizational symmathesy, as we propose the concept, is thus the process of becoming through accommodating, combining, and responding to responses in the now, to the warm and cold data that constitutes the living system at any given time.

With this definition we now invite you, the reader, into the research field of symmathies, vitaes, and learning in living systems. Life is an irreducible phenomenon. Science has always had as an imperative that it must reduce the studied phenomenon. But on the other hand, science develops by pushing its boundaries. What was not science yesterday might become science today. As we have not yet conducted research on the concept of organizational symmathesy in organizational contexts, the opportunities for further investigation are manifold. We propose a broader literature study to examine organizational symmathesy in relation to such concepts as the learning organization, knowledge management, etc. so that the foundation of this new way of understanding learning in organizations can arise. Furthermore, we propose the development of research strategies for collecting and analyzing warm data in organizational contexts. Finally, we propose research into how organizational symmathesy might guide our understandings and help us find new solutions to the contemporary challenges we face today such as the ones mentioned in the introduction of this paper.

References

- Argyris, C. (1990). *Overcoming Organizational Defenses: Facilitating Organizational Learning*. Englewood Cliffs, NJ: Prentice-Hall.
- Argyris, C., & Schön, D. A. (1978). *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley.
- Argyris, C., & Schön, D. A. (1996). *Organizational Learning II: Theory, Method, and Practice*. Reading, MA: Addison-Wesley.
- Bakken, T., & Hernes, T. (2006). Organizing is Both a Verb and a Noun: Weick Meets Whitehead. *Organization Studies*, 27(11), s. 1599-1616.
- Basten, D., & Haamann, T. (July-September 2018). Approaches for Organizational Learning: A Literature Review. *SAGE Open*, s. 1-20.
- Bateson, G. (1972). *Steps to an Ecology of Mind*. The University of Chicago Press.
- Bateson, N. (2016). *Small Arcs of Larger Circles: Framing Through Other Patterns*. Axminster, UK: Triarchy Press.
- Bateson, N. (2022). New Words to Hold the Invisible World of Possibility: Warm Data, Symmathesy and Aphanipoiesis. *Unpsychology*, 8, s. 12-17, 101-105.
- Bergson, H. (1907). *Creative Evolution*. London, UK: Macmillan.
- Bergson, H. (1988 [1896]). *Matter and Memory*. New York: Zone Books.
- Brix, J. (2019). Innovation Capacity Building: An Approach to Maintaining Balance Between Exploration and Exploitation in Organizational Learning. *The Learning Organization*, 26(1), s. 12-26.
- Brix, J. (2021). *Strategisk innovationsledelse - Om balancen mellem drift og udvikling i offentlige og private organisationer*. København: Hans Reitzels Forlag.
- Brown, J. S., & Duguid, P. (February 1991). Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation. *Organization Science*, 2(1), s. 40-57.

- Capra, F., & Luisi, L. (2014). *The Systems View of Life: A Unifying Vision*. Cambridge, UK: Cambridge University Press.
- Carlsen, A. (2006). Organizational Becoming as Dialogic Imagination of Practice: The Case of the Indomitable Gauls. *Organization Science*, 17(1), s. 132-149.
- Chia, R. (1999). A 'Rhizomic' Model of Organizational Change and Transformation: Perspective from a Metaphysics of Change. *British Journal of Management*, 10, s. 209-227.
- Chia, R. (2003). Organization Theory as a Postmodern Science. I H. Tsoukas, & C. Knudsen (Red.), *The Oxford Handbook of Organization Theory - Meta-theoretical Perspectives* (s. 113-140). Oxford, UK: Oxford University Press.
- Christensen, B. (2019). Learning to Become an Academic in an SME. *The Journal of Workplace Learning*, 31(1), s. 31-41.
- Cohen, M. D., & Sproull, L. S. (Red.). (1996). *Organizational Learning*. Thousand Oaks, CA: SAGE.
- Cyert, R. M., & March, J. G. (1963). *A Behavioral Theory of the Firm*. Englewood Cliffs, NJ: Prentice-Hall.
- Easterby-Smith, M., & Lyles, M. A. (2011). The Evolving Field of Organizational Learning and Knowledge Management. I M. Easterby-Smith, & M. A. Lyles (Red.), *Handbook of Organizational Learning & Knowledge Management* (2. udg., s. 1-20). John Wiley & Sons.
- Elkjaer, B. (October 2021). Taking stock of "Organizational Learning": Looking back and moving forward. *Management Learning*, s. 1-25. doi:10.1177/13505076211049599
- Fulmer, R. M., & Keys, J. B. (2004). A Conversation With Chris Argyris: The Father of Organizational Learning. I K. Starkey, S. Tempest, & A. McKinley (Red.), *How Organizations Work* (2. udg., s. 16-28).
- Gustavsson, M., & Lundqvist, D. (2021). Learning Conditions Supporting the Management of Stressful Work. *The Journal of Workplace Learning*, 33(2), s. 81-94.
- Helin, J., Hernes, T., Hjorth, D., & Holt, R. (Red.). (2014). *The Oxford Handbook of Process Philosophy & Organization Studies*. Oxford, UK: Oxford University Press.
- Herbert, F. (1965). *Dune*. Chilton Books.

- Hernes, T. (2008). *Understanding Organization as Process: Theory for a Tangled World*. Routledge.
- Hernes, T., & Bévor, F. (2018). *Organisering i en verden i bevægelse*. Samfundslitteratur.
- Hoel, L., & Christensen, E. (2020). In-field Training in the Police: Learning in an Ethical Grey Area? *The Journal of Workplace Learning*, 32(8), s. 569-581.
- Huber, G. P. (February 1991). Organizational Learning: The Contributing Processes and the Literatures. *Organization Science*, 2(1), s. 88-115.
- Hussain, A., Rossi, T., & Rynne, S. (2019). Learning in the ED: Chaos, Partners and Paradoxes. *The Journal of Workplace Learning*, 31(5), s. 361-376.
- Hutchins, G., & Storm, L. (2019). *Regenerative Leadership: The DNA of Life-affirming 21st Century Organizations*. Wordzworth Publishing.
- James, W. (1996 [1909]). *A Pluralistic Universe*. University of Nebraska Press.
- Jarzabkowski, P., Lê, J., & Spee, P. (2017). Taking a Strong Approach to Analyzing Qualitative Process Data. I A. Langley, & H. Tsoukas (Red.), *The SAGE Handbook of Process Organization Studies* (s. 237-253). Thousand Oaks, CA: SAGE Publications.
- Jørgensen, K. M., & Rasmussen, P. (2005). Organisatorisk læring som perspektiv på organisatoriske forandringer. I K. M. Jørgensen, & P. Rasmussen (Red.), *Forandringsprojekter som organisatorisk læring* (s. 9-37). Aalborg: Aalborg Universitetsforlag.
- Keller, H. D. (2011). Tilpassende og udviklende læring på arbejdspladsen. I N. Stegeager, & E. Laursen (Red.), *Organisationer i bevægelse: Læring - udvikling - intervention* (s. 79-104). Frederiksberg C: Samfundslitteratur.
- Langley, A. (1999). Strategies for Theorizing from Process Data. *The Academy of Management Review*, 24(4), s. 691-710.
- Langley, A., & Tsoukas, H. (2010). Introducing "Perspectives on Process Organization Studies". I T. Hernes, & S. Maitlis (Red.), *Proces, Sensemaking, & Organizing* (s. 1-26). Oxford, UK: Oxford University Press.

- Langley, A., & Tsoukas, H. (Red.). (2017). *The SAGE Handbook of Process Organization Studies*. Thousand Oaks, CA: SAGE Publications.
- Laursen, E., & Stegeager, N. (2011). Organisatorisk læring og transfer. I N. Stegeager, & E. Laursen (Red.), *Organisationer i bevægelse: Læring - udvikling - intervention* (s. 49-78). Frederiksberg C: Samfundslitteratur.
- Lave, J. (2019). *Learning and Everyday Life: Access, Participation, and Changing Practice*. Cambridge, UK: Cambridge University Press.
- Lave, J., & Wenger, E. (2003 [1991]). *Situeret læring - Og andre tekster*. København: Hans Reitzels Forlag.
- March, J. G. (February 1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1), s. 71-87.
- March, J. G. (2008). *Explorations in Organizations*. Stanford, CA: Stanford Business Books.
- Nicolini, D., & Monteiro, P. (2017). The Practice Approach: For a Praxeology of Organisational and Management Studies. I A. Langley, & H. Tsoukas (Red.), *The SAGE Handbook of Process Organization Studies* (s. 110-126). Thousand Oaks, CA: SAGE Publishing.
- Park, S., Stylianou, A., Subramaniam, C., & Niu, Y. (2015). Information technology and interorganizational learning: An investigation of knowledge exploration and exploitation processes. *Information & management*, 52(8), s. 998-1011.
- Pettigrew, A. M. (1987). *The Management of Strategic Change*. Oxford, UK: Blackwell.
- Pettigrew, A. M. (1997). What is a Processual Analysis? *Scandinavian Journal of Management*, 13(4), s. 337-348.
- Pettit, K., Crossan, M., & Vera, D. (2017). Organizational Learning and Knowledge Processes: A Critical Review. I A. Langley, & H. Tsoukas (Red.), *The SAGE Handbook of Process Organization Studies* (s. 481-496). Thousand Oaks, CA: SAGE Publications.
- Reichenbach, R., Eberl, C., & Lindenmeier, J. (2021). Come On, Network! Empowering Employees to use Web-Based Interorganizational Learning Platforms in Research and Development. *The Learning Organization*, 28(2), s. 167-180.

- Schreurs, B., Van den Beemt, A., Moolenaar, N., & De Laat, M. (2019). Networked Individualism and Learning in Organizations: An Ego-network Perspective on Informal Learning Ties. *The Journal of Workplace Learning*, 31(2), s. 95-115.
- Shipton, H., & DeFillippi, R. (2011). Psychological Perspectives in Organizational Learning: A Four-quadrant Approach. I M. Easterby-Smith, & M. A. Lyles (Red.), *Handbook of Organizational Learning and Knowledge Management* (s. 67-81). John Wiley & Sons.
- Shotter, J. (2014). Interview on witness-thinking, Sommeruniversitet 2014. (J. Nørlem, Interviewer)
- Starbuck, W. H. (2003). The Origins of Organization Theory. I H. Tsoukas, & C. Knudsen (Red.), *The Oxford Handbook of Organization Theory - Meta-theoretical Perspectives* (s. 143-182). Oxford, UK: Oxford University Press.
- Steiber, A., Alänge, S., & Corvello, V. (2021). Learning with Startups: An Empirically Grounded Typology. *The Learning Organization*, 28(2), s. 153-166.
- Styhre, A. (2004). Rethinking Knowledge: A Bergsonian Critique of the Notion of Tacit Knowledge. *British Journal of Management*, 15(2), s. 177-188.
- Tsoukas, H. (2005). *Complex Knowledge: Studies in Organizational Epistemology*. Oxford, UK: Oxford University Press.
- Tsoukas, H. (2019). *Philosophical Organization Theory*. Oxford, UK: Oxford University Press.
- Tsoukas, H., & Chia, R. (2002). On Organizational Becoming: Rethinking Organizational Change. *Organization Science*, 13(5), s. 567-582.
- Van de Ven, A. H., & Poole, M. S. (2005). Alternative Approach for Studying Organizational Change. *Organization Studies*, 26(9), s. 1377-1404.
- Vera, D., Crossan, M., & Apaydin, M. (2011). A Framework for Integrating Organizational Learning, Knowledge, Capabilities, and Absorptive Capacity. I M. Easterby-Smith, & M. A. Lyles (Red.), *Handbook of Organizational Learning and Knowledge Management* (2. udg., s. 152). John Wiley & Sons.
- Weick, K. E. (1974). Middle Range Theories of Social systems. *Behavioral Science*, 19(6), s. 357-367.

- Weick, K. E. (1979). *The Social Psychology of Organizing* (2. udg.). McGraw-Hill.
- Weick, K. E. (1995). *Sensemaking in Organizations*. Thousand Oaks, CA: Sage Publications.
- Wenger, E. (2003). Communities as Practice and Social Learning Systems. I D. Nicolini, S. Gherardi, & D. Yanow (Red.), *Knowing in Organizations* (s. 76-99). Armonk, NY: M. E. Sharpe.
- Wenger, E. (2004 [1998]). *Praksisfællesskaber*. København: Hans Reitzels Forlag.
- Wenger, E., & Snyder, W. (January-February 2000). Communities of Practice: The Organizational Frontier. *Harvard Business Review*, 78(1), s. 139-145.
- Whitehead, A. N. (1961 [1933]). *Adventures of Ideas*. New York, NY: The Free Press.
- Whitehead, A. N. (1968 [1938]). *Modes of Thought*. New York, NY: The Free Press.
- Whitehead, A. N. (1978 [1929]). *Process and Reality - Corrected Edition*. (D. R. Griffin, & D. W. Sherburne, Red.) New York, NY: The Free Press.