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The role of self-transcending knowledge in Senge's understanding of learning organizations towards an interdisciplinary taxonomy of self-transcending knowledge

Knowledge in
Senge's
understanding

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Abstract

Purpose – The purpose of this paper is to explore the concept of self-transcending knowledge as one of P. Senge's common themes underpinning his five disciplines approach. It will be shown that the notions of vision, purpose and transcendence, especially self-transcendence are closely related to each other. However, the aspect of self-transcendence has not been covered well yet in the existing literature. That is why this paper is guided by the following research question: What does a consolidated, integrative and interdisciplinary concept of self-transcending knowledge look like, and what are its defining and unifying features and characteristics with respect to learning organizations?

Design/methodology/approach – This conceptual paper draws on (both theoretical and empirical) interdisciplinary evidence from a wide variety of fields, such as organization studies, psychology, philosophy, learning organizations, cognitive science and innovation studies. Key authors from the field of self-transcending knowledge and their approaches will be discussed to develop a unified interdisciplinary concept of self-transcending knowledge and its possible applications, which will be demonstrated in a case study.

Findings – Self-transcending knowledge turns out to be central in the fields of learning (organizations) and innovation, as it deals with future-oriented knowledge that is “not yet”, that transcends the boundaries of existing knowledge. It is based on self-detachment, the notion of potentials and the insight that novel knowledge is not only the result of a creative agent (or organization) but also can be found and cocreated through an attentive search in an unfolding reality.

Originality/value – Existing literature in the field of P. Senge's five disciplines (and beyond) does not offer a comprehensive concept of self-transcending knowledge. This paper addresses this issue by bringing together approaches from a wide range of fields related to this concept; it develops an interdisciplinary and coherent notion and taxonomy of self-transcending knowledge and shows its impact for learning organizations and innovation.

Keywords Innovation, Purpose, Potential, Novelty, Future-orientation, Self-transcending knowledge, Senge's five disciplines, Future-orientedness

Paper type Conceptual paper



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Introduction

Besides other concepts, one of the central aspects of Senge's seminal work on the learning organization (Senge, 1990) is the notion of *vision*. This word appears 557 times in his book. For him, *personal vision* is as important (Reese, 2020) as *shared vision* in an organization. Although personal vision is strongly connected with the discipline of "personal mastery", shared vision is one of the four disciplines itself that Senge (1990) proposed as being essential for a learning organization. Senge stresses the motivational effect of creating and being aware of a vision by stating, "Few, if any, forces in human affairs are as powerful as shared vision" (Senge, 1990, p. 191).

For Senge, the notion of vision contains at least two closely related facets: *purpose* and *transcendence*. He writes, "Real vision cannot be understood in isolation from the idea of purpose" and:

People with a high level of personal mastery [...] have a special sense of purpose that lies behind their visions and goals. For such a person, a vision is a calling rather than simply a good idea. (Senge, 1990, p. 127)

Regarding the aspect of transcendence he argues that "the most accurate word [...] to describe what happens in a learning organization is [...] "metanoia", and it means [...] more literally transcendence ("meta" – above or beyond, as in "metaphysics") of mind ("noia" from the root "nous," of mind; Senge, 1990, p. 14) and that "great organizations have a larger sense of purpose that transcends providing for the needs of shareholders and employees" (Senge, 1990, p. 208). Senge suggests "to grasp the meaning of metanoia is to grasp the deeper meaning of learning, for learning also involves a fundamental shift or movement of mind" (Senge, 1990, p. 14).

From these considerations it becomes clear that there is a strong interdependence among vision, purpose and transcendence, especially self-transcendence, both on an individual and organizational level. This "triangle" is underpinning Senge's (1990) five disciplines: building a shared vision, systems thinking, mental models, team learning and personal mastery; they are constitutive for every learning organization. What holds this triangle together is the *future-oriented perspective* that is essential for vision and for self-transcendence and purpose. However, both our brains and our organizations are not well prepared for dealing with an uncertain future and with creating novel structures, as they are mostly driven by our past experiences. The predictive mind approach from cognitive science provides strong evidence that our brains and cognition are basically (past) experience-driven prediction machines (Clark, 2013, 2016; Hohwy, 2013). As has been shown by Grisold and Peschl (2017), similar phenomena can be found in the organizational context. Hence, if vision, self-transcendence and purpose are supposed to be primarily future-driven/oriented, we have to overcome the limitations of a strategy that primarily extrapolates past experiences into the future.

This paper focuses on one aspect of this triangle, namely, *self-transcendence*. Our claim is that if one engages in activities shaping the future, it is necessary to consider the concept of self-transcendence and self-transcending knowledge. Simply speaking, self-transcending knowledge deals with what is not yet and to see and bring into existence what does not yet exist (Scharmer, 2001, 2016) by leaving behind and transcending the boundaries of already existing knowledge or phenomena. Therefore, the central aim of this paper is to develop a profound understanding of self-transcendence/self-transcending knowledge and explicate its relationship to Senge's perspective of learning organizations.

So the research question of this paper is as follows: What does a consolidated, integrative and interdisciplinary perspective on self-transcending knowledge look like, and what are its defining and unifying features and characteristics with respect to learning organizations?

To answer this research question, first, we will identify key concepts and authors in the field of self-transcending knowledge, and we will describe their approaches. Second, we will develop an interdisciplinary perspective integrating the approaches from the first part into a coherent concept of self-transcending knowledge. Finally, the final section integrates the proposed taxonomy of self-transcending knowledge into Senge's learning organization.

Conceptual review on self-transcending knowledge

Self-transcendence has been considered as highly relevant in many fields, such as personal development, organizational design/becoming (Clegg *et al.*, 2005; Tsoukas and Chia, 2002) and innovation. There exist several self-transcendence related scales (Reed, 2009; Längle *et al.*, 2003; Wong, 1998; Haugan *et al.*, 2012), which are quite different. What they all have in common is that they try to measure the self-transcendence of a person. Self-transcendence has been discussed in a wide variety of disciplines, e.g. philosophy, psychology, nursing, knowledge management or change management, for many years. However, there has been little work on trying to integrate these concepts in an interdisciplinary and epistemological context, and there are only very few publications on how the generation of self-transcending knowledge can be supported and enabled (Kaiser and Fordinal, 2010). Therefore, we propose to develop and clarify the concept of self-transcending knowledge in an integrative and interdisciplinary manner, so that we can identify and observe it in various contexts.

Aristotle: self-transcending knowledge, potentiality, purpose and final cause

If self-transcending knowledge is about knowledge that is not yet embodied and about sensing emergent opportunities, we have to take a short look at philosophy to frame the concept in a broader context in a first step. Thinking about change and innovation always implies that we have to acknowledge that we are dealing with an unfolding, incomplete and open-ended reality (Peschl, 2019a). One can see that the world in general, our being as humans and organizations are in a constant process of becoming and unfolding over time. They are in an unfinished and incomplete process and state of not yet. We do not know (exactly) where this unfolding is leading to; because of this open-endedness, we have just a rough idea about its (current) determination or (future) final cause/purpose at best (as it might change over time as well). As has been shown by Bloch (1986), as a consequence of reality being always in a state of not yet, it always comprises more than what we can perceive in the current moment. It has the potential to develop and unfold in various ways. As a consequence, future states of reality are categorically open (Poli, 2006, p. 77), meaning that the process of unfolding brings to light novel qualities, phenomena, categories, behavioral patterns or new determinations (in the sense of Aristotle's [1991] final and formal cause). These are present only in a hidden and/or latent manner; these have not yet been realized or perceivable. These are potentials waiting to be developed or triggered either by internal activities, maturation processes, by external triggers or environmental events.

From a philosophical perspective, this leads us directly to rather old concepts, namely, the concepts of *actuality*, *potentiality* and *final cause* (Aristotle, 1991). This is opposed to the classical focus of our time on efficient cause (compare also Mitleton-Kelly, 2007): Open and novel behaviors and social systems cannot be predicted in the classical Newtonian manner (exactly, because they are new), but they *emerge* in an act of (co-)creation. As we will see, the final cause is the driving force (although it might also co-emerge (Mitleton-Kelly, 2007)) that pulls or attracts the whole change and innovation process (toward its future or purpose). In the context of self-transcending knowledge, these dynamics seem to be the keys for understanding how not-yet-embodied knowledge might come into realization by unfolding into an unknown future. From an ontological perspective, this means that most phenomena

or objects are not completely determined in their dynamics (in the sense of that its future states are not completely predictable). In particular, this applies to complex (social) systems.

This perspective has its roots in, for instance, Aristotle's (1991) metaphysics and draws on the concepts of *potentia*/potentiality and *actus*/actuality. Contrary to actuals (i.e. really existing phenomena or objects), possibles are open to develop in various ways and directions; their unfolding into (an unknown) future depends, on the one hand, on their current state and their space of (adjacent) possible next states (they are intrinsic to this phenomenon/object) and, on the other hand, on environmental stimuli, influences or changes. In this context, it is important to introduce Aristotle's distinction between potential (-ity; Latin – *potentia*) and actuality (Latin – *actus*). Potentiality refers to potential, capacity, (cap-)ability or possibility. It denotes the capacity of an entity to change and to be in a more complete or perfect state and to its tendency to reach this complete state, its actuality (Aristotle, 1991, 1048a25).

In this sense, reality is conceived as being an unfolding process that has in itself a latent directedness toward the realization of its potentials leading to its (emergent) actuality, *telos* or purpose. This tendency toward a(n emergent) *telos* is closely related to the entity's potentiality and final cause. As an illustration, Cohen (2016) introduces the example of a piece of wood that can be shaped into a table or into a bowl. Hence, the piece of wood has at least two potentialities: it can become potentially a table or a bowl. The as yet uncarved wood is only potentially a table or a bowl and becomes a table or a bowl when it is given its form. Hence, the more complete state of wood, its actuality, is a table or a bowl. This piece of wood carries in it the potentiality to become a table or a bowl.

This is exactly the situation we are in when we are in a process of change or innovation; we are confronted with more or less (un)formed matter and have to find ways for bringing or transforming this potentiality into a more complete state of (sustainable) actuality. The concept of self-transcending knowledge is closely related to the state of potentiality. We are confronted with the shift toward a new form (formal cause) and purpose (final cause) that we do not know yet, which transcends the current actual.

Viktor E. Frankl: self-transcendence as the essence of human existence

Viktor E. Frankl was the first to propose and introduce the term self-transcendence in detail. Frankl argued that human existence – at least as long as it has not been neurotically distorted – is always directed to something, or someone, *other than itself*, be it a meaning or purpose to fulfill or another human being to encounter lovingly. He referred to this constitutive characteristic of human existence as *self-transcendence*. He showed that what is called as *self-actualization* is ultimately an effect, an unintentional by-product, of self-transcendence (Frankl, 1966). It is through pursuance of the path of self-transcendence that we become fully human (Wong, 2016). Furthermore, self-transcendence is strongly connected to *self-detachment*. Frankl points out that these two specifically human phenomena characterize human existence. Both are irreducibly human phenomena and are exclusively available in the human dimension (Frankl, 1966). He emphasizes that man is actualizing himself/herself precisely to the extent to which he/she is forgetting himself/herself, and he/she is forgetting himself/herself by giving himself/herself, be it through serving a cause higher than himself/herself, or loving a person other than himself/herself. Therefore, he argues, self-transcendence is the essence of human existence.

For Frankl, self-transcendence, namely, reaching out for a “meaning to fulfill,” is identical with what he refers to as “the will to meaning” (Frankl, 2000). Logotherapy maintains that meaning emerges from self-transcendence (to reach out beyond oneself and do things for the sake of others) and not primarily from self-actualization. Frankl argues that it is through

recognition of the basic human need for meaning and transcendence that we are able to fully appreciate what is right and noble about human beings (Wong, 2016). He points out that the perception of meaning boils down to becoming aware of a possibility against the background of reality, becoming aware of what can be done about a given situation (Frankl, 2000, p. 141). Therefore, Osin *et al.* (2016) argue that this cognitive restructuring of a situation happens because of the activity of conscience, which evaluates each situation in the light of the hierarchy of values that are not conscious constructs but rather inherent in human nature. However, the perception of the possibility of meaning is only a first step toward creating meaning in life, which emerges as a result of active doing, experiencing or position taking (Osin *et al.*, 2016, p. 82f). Therefore, the process of self-transcendence is both an activity of *discovering* and *giving meaning* (Wong, 2016). It can be seen as an expansion of self-boundaries (Frankl, 2011).

It is important to mention that self-transcendence is not derived from the fulfillment of organismic potentials but from a human's consciousness in relation with the world and his/her ability to find purpose beyond himself/herself therein. In fact, the completion of the self in the world can be described by self-transcendence to the objectiveness of the world. So, the discovery of meaning or purpose is an aspect of a human's consciousness, which is a separate realm from the psychological and biological domains and is not essentially contingent on environmental conditions (Phillips *et al.*, 1974). Human existence is not authentic unless it is lived in terms of self-transcendence (Frankl, 1966).

Frankl points out the importance of a certain degree of tension between what one has already achieved and what one still ought to accomplish or the gap between what one is and what one should become. Such a tension is inherent in the human being and, therefore, is indispensable to mental well-being (Frankl, 1985). Building on this, he emphasizes that it would be a dangerous misconception of mental hygiene to assume that what man needs in the first place is equilibrium or, as it is referred to in biology, "homeostasis," i.e. a tensionless state. He stresses that what man actually needs is the striving and struggling for a worthwhile goal, a freely chosen task and, therefore, not the discharge of tension at any cost but the call of a potential meaning waiting to be fulfilled by him/her (Frankl, 1985, p. 112). In this context, Frankl emphasizes that man is *pushed by drives but pulled by meaning*, and this implies that it is always up to him/her to decide whether or not he/she wishes to fulfill it. Thus, meaning fulfillment always implies decision-making (Frankl, 1966).

Another very important aspect of Frankl's approach of existential analysis and logotherapy is its *future orientation*. Frankl puts it very drastically when he notes that only those who were oriented toward the future, toward a goal in the future and toward a meaning to fulfill in the future were likely to survive (Frankl, 2000, p. 135).

Maslow on self-transcendence

Abraham Maslow is well known for his hierarchy of human needs, which consists of five levels starting with physical needs at the bottom and ending with the need for self-actualization at the top of the pyramid. However, in his later years, Maslow felt that his five-level hierarchy did not fully explain what motivated self-actualized people and also failed to account for his observation that self-actualized people still often behaved badly (Wong, 2016). After years of searching for an alternative to resolve this apparent contradiction in self-actualization, Maslow found a solution, and began giving lectures explaining an updated, adapted version of his hierarchy of needs (Koltko-Rivera, 2006).

This new version included a sixth motivational need above the need for self-actualization that Maslow referred to as *self-transcendence* (Koltko-Rivera, 2006). However, before he could widely publish his work on self-transcendence, Maslow died suddenly while jogging,

and his final, complete hierarchy of needs was partially lost to time. Maslow's final hierarchy did not receive wide attention until 2006, when Koltko-Rivera rediscovered it. According to Maslow, a person at the level of self-transcendence seeks to further a cause beyond the self and to experience a communion beyond the boundaries of the self through peak experience. An individual's own needs are put aside, to a great extent, in favor of service to others and to some higher force or cause conceived as being outside the personal self (Koltko-Rivera, 2006). In his book (Maslow, 1971, p. 269), Maslow stated:

Transcendence refers to the very highest and most inclusive or holistic levels of human consciousness, behaving and relating, as ends rather than means, to oneself, to significant others, to human beings in general, to other species, to nature, and to the cosmos

He points out that self-transcendence is often connected with peak experiences.

Nonaka's perspective on self-transcending knowledge

Nonaka and Konno (1998, p. 42) describe knowledge creation as a continuous self-transcendental process through which one transcends the boundary of the old self (individually or as an organization) into a new self by acquiring and creating a new context, a new world view and novel knowledge. They describe it as a journey "from being to becoming" (Nonaka et al., 2000, p. 8). In the context of self-transcendence, the SECI model of knowledge conversion and the concept of "ba" as a shared space for knowledge creation (Nonaka and Takeuchi, 2019; Nonaka and Konno, 1998) are important.

Nonaka introduces the SECI model by characterizing a spiraling process converting explicit knowledge to tacit knowledge (and vice versa) (Nonaka and Takeuchi, 1995; Nonaka and Konno, 1998). He shows that this transformation leads to the creation of novel knowledge. He describes four modes of conversion (socialization, externalization, combination and internalization) and claims that each of these conversion modes can be understood as processes of self-transcendence (Nonaka and Konno, 1998, p. 42). For instance, by spending time together or sharing tacit knowledge by engaging in joint activities (in the mode of socialization), one has to be open to become a larger self by absorbing tacit knowledge of the other and, therefore, transcending himself or herself. In the mode of externalization, for example, one has to transcend his/her boundaries, patterns of perceptions and thinking and framework of premises to achieve a better understanding of his/her boundaries and to commit to the group. As we have seen in the context of Frankl as well, the aspects of leaving behind, forgetting or self-transcending our existing patterns of knowledge or behaviors, habits, etc., seem to be of one common denominator in these processes of self-transcendence. Only if we manage to leave these patterns behind us, we will be able to grow, change and be open for novelty (both on an individual and organizational level).

Ba can be thought of as a shared space for emerging relationships, which can be physical, virtual, mental or any combination of them. "Ba may also be thought of as the recognition of the self in all" (Nonaka and Konno, 1998, p. 40). Corresponding to the SECI model, Nonaka and Konno (1998) identify four types of ba: originating ba, interacting ba, cyber ba and exercising ba. In the originating ba, for instance, participants openly share their emotions, their experiences or mental models. This ba provides the social infrastructure that trust, care, love and commitment might emerge. Physical proximity and face-to-face interaction are important in this context of becoming and creating a trustful social space. Similarly, in the interacting ba, people share their mental models and are asked to transcend them by engaging in a process of joint reflection (e.g. by using the method of dialogue (Bohm, 1996; Isaacs, 1999)). In Frankl's terms, this means that one has to transcend himself/herself in giving oneself.

Scharmer's concept of self-transcending knowledge

In his 2001 paper, [Scharmer \(2001\)](#) introduced the term and concept of self-transcending knowledge. As a point of departure, Scharmer identifies the need for developing the (cognitive) capacity of precognition as the ability to sense the presence of a potential, to see what does not yet exist. He argues that *self-transcending knowledge* can be understood as *the ability to sense and presence the emerging opportunities, to see the coming-into-being of the new* ([Scharmer, 2001](#), p. 137).

Scharmer compares the role of self-transcending knowledge to the situation of an artist creating a piece of art. He proposes three perspectives of how one could understand this situation. One can look (i) at the finished piece of art as the final material manifestation of the artist's thoughts; (ii) at the process of how this artwork is created and develops over time, as the process of making explicit of the artist's tacit knowledge; and (iii) at the artist standing in front of the blank canvas or the raw rock. A truly great artist has the capacity of sensing the emergent artwork, its shape or the sculpture, whereas others only see a blank canvas or a raw rock. The artist fully engages with the rock, in a way he/she becomes one and feels forward about what wants to emerge from such a close cooperation ([Peschl, 2019a](#)).

In the context of management and leadership, we are finding ourselves increasingly in a similar situation; due to the complexity and unpredictability, our social and economic world has become rather amorphous and ambiguous. It has become almost impossible to find any structure or coherence guiding the process of shaping innovations or future niches. Completely new skills and mindsets are necessary to tackle these problems.

From an epistemological perspective, [Scharmer \(2001, p. 139\)](#) characterizes self-transcending knowledge as a form of tacit knowledge that is not yet embodied, hence, tacit knowledge prior to its embodiment. It is based on different epistemological assumptions and requires different knowledge tools and organizational infrastructures. It is not knowledge about things or knowledge about how to do things. Rather, "not-yet-embodied knowledge captures knowledge about the sources or 'place' from where thought and action come into being. The focus is on the primary ground from where human action arises in the first place" ([Scharmer, 2001, p. 141](#)). In other words, reality emerges and is enacted in a process of bringing forth presence from absence or of unconcealing it ("presencing"). For an organizational and leadership context, this implies that our understanding of an organization as knowledge or learning organization ([Nonaka and Takeuchi, 1995](#); [Senge, 1990](#)) has to change as well. The focus has to shift from managing knowledge only to creating novel and sustainable knowledge by implementing novel learning infrastructures. [Scharmer \(2001, p. 145f\)](#) suggests to base a future-ready learning infrastructure on the interplay among shared action, shared reflection and forming shared will. Therefore, alternative organizational capacities and mindsets, such as openness, double- and triple-loop learning ([Peschl, 2007](#)) or presencing ([Scharmer, 2016](#)), have to be implemented.

What is self-transcending knowledge?

In this section we are going to develop an interdisciplinary perspective on self-transcending knowledge by integrating the diversity of aspects having been discussed previously in a coherent manner. We are trying to integrate these aspects along the following questions. What is common in these approaches? What are patterns that can be found in these concepts of self-transcending knowledge, what are common premises standing behind these concepts? How is self-transcending knowledge embedded in knowledge (creation) processes? We will identify and describe concrete attributes and characteristics that can be found across these approaches. To illustrate these features, examples and a short case will be given. The goal is to develop a set of criteria that can be used as qualitative pointers for empirical investigations.

Characteristics of self-transcending knowledge

Relation and interaction with world and with something that is other than it-/oneself. One of the key premises for self-transcending knowledge is, as the name suggests, that it goes beyond itself/the self; it *transcends the boundaries* of the self. It leaves behind the boundaries of the self and radically engages in an interaction with the world with the other (be it another person, an object in the world or a phenomenon lying outside the self or the organization). In other words, self-transcending knowledge is concerned with phenomena outside its (knowledge/body/existential) boundaries. It makes use of the *otherness* (Nonaka and Konno, 1998) as a source for going beyond itself, transcending itself.

Expansion of boundaries (of the self) and bigger picture. As a consequence of engaging with the external world and encountering the otherness, the boundaries of the self or of existing knowledge are expanded. In such interactions, knowledge transcends itself by being complemented through experiences originating in concrete (inter-)actions with a partly unknown world. However, self-transcending knowledge is about not only learning or adaptations of existing knowledge but also acquiring and dealing with the *bigger picture*, which one is part of, and knowledge about one's role in this bigger picture/world. Part of the bigger picture is a perspective of *wisdom* (Aristotle, 1991; Nonaka and Takeuchi, 2019) that looks beyond the visible and tries to identify the causes and principles behind the obvious. This leads to a more profound and deeper understanding of the phenomenon and transcends the boundaries of common knowledge.

Purpose, meaning and final cause. In many cases, the purpose or the final cause is not known from the onset; they are emerging and unfolding in the process of interacting with the world and of creating novel knowledge and meaning (Mitleton-Kelly, 2007). This applies especially in the context of future-oriented/driven innovation or vision-developing processes (Peschl and Fundneider, 2017). Normally, these processes (and more specifically, their results and outcomes) cannot be planned ahead of time, as they are emerging. Self-transcending knowledge contains hints and pointers toward answering rather existential questions such as who am I and what am I here for (or similar questions concerning the purpose in the organizational context). Sometimes self-transcending knowledge includes very concrete episodes and – maybe very short – peak experiences, in which purpose and meaning have been experienced. In many cases, they will be intuitive or implicit, and it will take some effort to express them in words, independently of whether they are based on real or on imagined experiences.

Potentiality and tension between what is and what could/should be, what is not yet. Self-transcending knowledge is characterized by comprising an aspect of *potentiality*. This is different from classical notions of knowledge, such as “justified true belief” (Steup, 2012) or “representing that what is” or “actuals” (Kauffman, 2014). Self-transcending knowledge, on the other hand, contains awareness and experience about the gap between *what is* and *what should/could be, what is not yet*. The resulting tension is experienced as a creative, mostly positive, motivating and inspiring force that can be seen as an enabler for development as a transformation from the domain of potentials into the domain of actuals. This characteristic of self-transcending knowledge also contains knowledge or at least an idea or intuition about the potentiality of further development and possible futures or future purposes.

Pulling and not pushing. Our modern world is primarily driven by the dynamics of efficient cause (Aristotle, 1991; Falcon, 2015). Almost everything is designed and explained in terms of an efficient cause pushing and being the only cause to produce a specific effect, outcome or result. As we have seen, self-transcending knowledge, on the other hand, has a strong focus on *final cause*, i.e. self-transcending knowledge can be described as something that *pulls* or *attracts* a person or an organization toward a goal, telos or purpose. One has

always the choice to follow this pull. In other words, it covers the freedom to make a choice between accepting and rejecting an offer or else to forfeit it.

Future-oriented and yet respecting, cherishing and including past/existing knowledge. Self-transcending knowledge is always future-oriented implying that it comprises additional capacities to act for the future. However, it also includes the past to the effect that in this moment a person or an organization recognizes that the past has made sense and was meaningful. In other words, the future orientation of self-transcending knowledge enables a better understanding of the past and its transformation into a thriving future. Hence, the present point in time and state/situation is the point of getting in contact with potentiality and the interface between the past and the future.

Self-detachment and forgetting/unlearning. Self-transcending knowledge always comprises the aspect and ability of *self-detachment*. This means that we are capable of distancing ourselves from not only our knowledge but also our beliefs, mental models and our framework of premises (e.g. in reflection or dialogical settings; [Bohm, 1996](#)). Furthermore, self-detachment is an important and necessary prerequisite for self-transcendence, as it contains the ability of forgetting and unlearning and therefore leaving behind what we are not. Only if we are capable of distancing ourselves from our core beliefs and leave behind what hinders our development, we will be free to listen to what wants to emerge and receive novelty ([Peschl, 2019b](#)).

The source of novelty is found in an unfolding emerging reality. Self-transcending knowledge always carries in itself an aspect of novelty. Although not being present in an explicit manner, it is hidden and implicit in the potentiality. Novelty “waits” to be discovered, cultivated, incubated and developed in a process of individual and collective knowledge creation and interaction with the environment. However, this must not be misunderstood in the sense of some kind of creativity technique or brainstorming ([Mumford, 2012](#); [Sternberg, 1999](#)). It is not primarily the creative agent who is the author of creating novelty but the potentials that can be found in an unfolding reality. Novel knowledge emerges in a process of cocreation among not only the members of a team but also primarily cognitive systems and their embeddedness and interaction with the world. They are *enacting* novel environments ([Peschl, 2019a](#)). It is about letting go of (epistemological) control, an attitude/virtue of humbleness, and empathically listening to what wants to emerge ([Scharmer, 2016](#)). It is about giving up the (implicit) assumption of a creative mind dominating over reality. Rather, we suggest to reverse this relationship and replace it by a relationship of co-becoming and correspondence to the world ([Ingold, 2014](#)).

Case study exemplifying the role and various aspects of self-transcending knowledge

In an innovation project with a global office furniture supplier, an innovation team started off with the brief of having to develop novel office furniture. The self-understanding and purpose of the company was to produce well-functioning and designerly office furniture.

In the course of the project, it turned out that the future potential of this company is not limited to producing innovative functional office furniture; however, it became clear that product development processes should *not* start with trying to reinvent chairs or tables. By radically shifting perspective and a process of *self-detachment* and *reflection*, the innovation team discovered the future potential of looking at office furniture in a broader and much more comprehensive manner (*big picture*). It started to understand that the deeper *future purpose* of their office furniture is not just to sit and write on it but that it acts as a means for supporting and enabling knowledge, innovation and social processes.

This resulted in an understanding of a wide variety of work processes ranging from ideation, creative work, individual concentrated work, collaborative co-creation processes,

etc., to prototyping, project management and collective decision-making processes as socio-epistemic processes. Instead of looking primarily at furniture and its design, the company started to develop a knowledge – innovation – and social perspective on their products. This led to creating whole knowledge and social settings for specific work processes that are supported by the company's furniture (plus some new services).

It was necessary to *transcend existing knowledge*, premises and routines and to tap into a *novel future potential* (of understanding office work as a knowledge and social process) to develop such a novel approach to office furniture. This resulted in not only a radical change in product development but also a change in the company's communication, marketing and sales strategy. This company is no longer known for selling only functional office, chairs and tables but as experts for developing complex solutions and *settings* for whole knowledge, creativity, innovation, etc., work environments in organizational contexts. The next step could be to develop new business models in the fields of combined workplace consulting, new ways of (agile) working and collaboration, office furniture and organizational design.

The interesting point is that although this company is still only producing office furniture, this is done now in a completely *new mindset going far beyond the boundaries* of their original self-understanding. Their *purpose has changed* dramatically through this process that made use of and created *self-transcending knowledge*. It still respects the original intent and expertise of the company but has transcended its boundaries and transformed it into a completely new meaning and purpose. It has brought to life something that was not yet but that wanted to emerge and brought this company from a *future potential* into the actuality of a *new state of (higher) completeness*.

Conclusion

In this paper, we have developed a taxonomy for self-transcending knowledge. We argued that the phenomenon of self-transcendence is discussed in a wide variety of scientific fields and that these various disciplines could benefit from each other, if we could establish a knowledge-based interdisciplinary and integrative view of self-transcendence. Although Peter Senge's groundbreaking work has been published already 30 years ago, the original definition of a learning organization set forth in *The Fifth Discipline* still applies. Recently, Senge stated that a learning organization is "something like the organization where people are continually developing their capacity to create the results that they really want to create" and that learning can be seen as "a universal human activity whereby we go through some process over time that enhances our capacity to do something that we really want to do" (Reese, 2020, p. 9).

These two aspects, results that we really want to create and doing something that we really want to do, are strongly linked to being real, whole and *authentic*, or in other words, corresponding to one's own real self. The shaping of such a "real self" can be seen as a stepwise learning process from one stage of the self to another stage (both individually and as an organization). As Senge mentions, first, the action is imperative to learning, and second, action must be followed by reflection upon the action.

The taxonomy of self-transcending knowledge having been developed in this paper supports the reflection part of a learning process and helps to evaluate the outcome of an action. Senge distinguishes two types of learning, "survival learning" or "adaptive learning" and "real learning" or "generative learning" (Senge, 1990, p. 14). While mentioning that adaptive learning is sometimes important and necessary, Senge points out that the essential meaning of a learning organization is to be an organization that is continually expanding its capacity to create its future by embodying the generative learning type:

Real learning gets to the heart of what it means to be human. Through learning, we re-create ourselves. Through learning, we become able to do something we never were able to do. Through learning, we re-perceive the world and our relationship to it. Through learning, we extend our capacity to create, to be part of the generative process of life. There is within each of us a deep hunger for this type of learning (Senge, 1990, p. 14).

As proposed in this paper, the more the learning outcome contains the aspects of self-transcending, the more it can be assumed that learning was a process of real and generative learning.

Implications for theory and practice, limitations and further research

This research has several implications for theory and practice. On the theoretical side, we developed a taxonomy characterizing self-transcending knowledge based on a set of highly diverse existing literature that integrates a wide variety of disciplines in which self-transcendence has been discussed. With this interdisciplinary approach, we have not only closed a gap in the literature but also suggested a possible approach to classify learning processes within the learning organization. The proposed taxonomy allows analyzing data from observing (organizational) learning, organizational change or innovation processes. Hence, based on our taxonomy, self-transcending knowledge can be relatively easily identified and the principles of fostering and enabling the creation of self-transcending knowledge can be inferred. One limitation of our work is the fact that we have not tested our developed taxonomy for self-transcending knowledge with empirical data yet. We will address this limitation in our further research. Furthermore, it will be interesting to investigate how we could possibly “measure” the occurrence and impact of self-transcending knowledge.

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