LEARNING FOR WORK FROM THE PAST, IN THE PRESENT, AND INTO THE FUTURE?

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Abstract

In this contribution, the complex interdependencies of the concepts of work and learning and, implicitly, also the concept of knowledge are discussed theoretically from three different but complementary perspectives. The urgency for this exercise lies in the author's belief that learning for work is a topic which cannot be approached in a one-dimensional linear manner. The reason for this lies in the observation that, although in general free will seems to be illusionary in learning for work, we nevertheless acknowledge the individual with their own will, which gives (future) workers some control over changing themselves, their own working life, and the context around their work for the better (Van Dellen & Heidekamp, 2015). The question in this study is whether learning for work is driven by the individual, the actual knowledge aspect of the work, or the more general contextual features of the actual (learning for work) situation.

The three different and complementary perspectives that will be discussed concern firstly the idea of the transformative mind (Stetsenko, 2017) using Vygotsky's view of development and learning. The second perspective follows theoretical ideas about transformative learning that concern the complex process of individuals as they develop a more critical world view (Laros, Fuhr, & Taylor, 2017). Finally, the third perspective confronts the learning for work conceptual framework based on Ford's (1992) motivational theory and the philosophical essay about responsibility by Verplaetse (2012) contextualized and operationalized in a study by Van Dellen and Heidekamp (2015). The most practical consequence of all of this theorizing lies in the outcome that learning for work is always something transitional and future-directed. This consequence means a great deal for our ideas about learning and development and the role of education, training, and development both vocationally and professionally. The article ends with a discussion of these consequences.

Keywords

transformative mind, learning paradigm, pedagogical professional, learning for work

Introduction

In this article, I start by disagreeing with the generally still held in practice belief that the concept of *learning for work* consists of two entities, namely *work* and the somewhat and somehow separated *learning*. This is not the case, as Mulcahy explicitly stated and showed in 2011, calling it an approach with a *representationalist epistemology* (see the handbook of Malloch et al., 2011 extensively; and even earlier Evans, 2009 and Evans et al., 2006). "The worlds of work and learning tend to be conceived as disjunctive domains of knowledge (theory, words) and experience (practice, things) that require linkage (through practices of transfer integration and boundary crossing)" (Mulcahy, 2011, p. 206). In the work of many authors, particularly the Dutch authors Poell and Van der Krogt (2017), the two concepts are even strictly separated – using learning-network theory – in organizational working and learning *systems*. As such, it is not that surprising that they concluded that the organization of human resource development (various approaches to learning for work) is a very problematic issue. In contrast, Mulcahy (2011) used the socio-material approach of actor–network theory to suggest that "far from being disjunctive domains, work and learning are intricately inter-related" (p. 204).

The interrelatedness of learning and work is also somewhat suggested in the outcomes of an empirical study by Chisholm, Larson, and Mossoux (2004). They concluded that adults experienced learning best at home and during leisure time and additionally actual work can be an important space to learn for them. This is in line with a study by Van Dellen and Yurtmaz (2017). They used, among other methods, participative photograph interviews to study the why, what, and how of learning in various types of (work)places. The response group consisted of adult-learning professionals. The learning professionals indicated that they thought that they learn almost constantly in every situation and that they learnt a lot, but that all of this was especially the case in their home place where moments of learning are experienced through such qualities as "ownership," "identification," and "quietness." Nevertheless, they also experienced learning while doing their work at a workplace desk or in a lecture or training room, but this learning was characterized by the quality of the "interaction" (social).

These empirical insights triggered my search for theoretical perspectives that are more in congruence with my lasting belief that learning for work (as well as for life) often is not deeply enough described, approached, or discussed in the theoretical literature about learning for work. Firstly, the generally used typology of formal, non-formal, and informal learning is not useful because it does not say anything about the actual learning of the adult as such but rather about the characteristics of the various contexts in which

the education, training and development, mentoring, coaching, or learning takes place.

Secondly, the four popular metaphors to describe and understand adult learning, namely accumulation, assimilation, accommodation, and transformation, are quite flawed representations of learning for at least three reasons. To begin with, there is a belief that data is and should be ordered in sorts of packets of information which relate together in some respect. Rationally, this seems to be plausible and there may even be some psychological functional empirical evidence for the idea, but in brain images these packets show such a diffuse picture that the idea must be far too simple. And there is the additional argument formulated by Damasio (1994) that no representation in the mind is objective, reliable, or valid because every representation has an emotional stamp coming from the senses and limbic system which adds some value to the fact. To be rational in an absolute sense is not at all easy for us humans because accumulating, assimilating, accommodating, and transforming knowledge means that all individual learning contains an aspect of personal epistemology and ontology. So learning knowledge for work is, in the end, always something idiosyncratic.

The third reason is that the learning aspect of motivation is underestimated in the first three metaphors of learning. The idea of expected and educationally regulated behaviour adaptation is very dominant in these metaphors. In contrast, in the fourth transformational learning metaphor the individual learner comes into his or her own right; this can be considered a somewhat late personal recognition of the essence of the adult learner. Recently, Taylor suggested that transformative learning is more or less the new andragogy (Knowles, 1984).

Finally, learning for work differs from other learning conditions because the relationship between the learner or (future) worker and the societal or organizational context differs from other situations in which learning and development is undertaken (learning for school or a qualification and learning for life). Although the future is part of the perspective of the learning activities, the relationship with the context in the case of work is psychologically different. The voluntary nature of the learning on the one hand and its compulsory nature on the other are responsible for differences in the psychology of learning as well as its sociology. This is quite a fundamental and typical character of learning for work in most situations (see also Hager, 2011).

In sum, I have been searching consciously and most probably also unconsciously for theoretical perspectives that accommodate the described unique character of learning for work. One day during a lecture concerning the importance of transformative learning at work, a colleague suggested the recently published book *The Transformative Mind* (Stetsenko, 2017). While

reading this clear and exciting text, I was astonished because it brought together thoughts on learning that kept me awake for some time. The subtitle of the book, *Expanding Vygotsky's Approach to Development and Education*, well shows the background idea of these thoughts about learning. But the most interesting for me has been the underlying belief that essential learning (in our case for work) may be on the one hand something very personal—even individualistic and psychological—and on the other at the very same time also something very context-related (sociocultural). This additionally means that this learning is also relational and dialectical. I will go into this further in the next section: The learning-situated mind.

At the same time, I deepened my interest in transformative learning by studying the work of Mezirow, Taylor, King, and others to understand their ideas and the accompanying empirical evidence relating it to learning for work. The outcomes of this study are the subject of the second section: The transformational learning paradigm.

The third section focuses more closely on compulsory or voluntary issues surrounding learning for work which have already been introduced by Verplaetse (2012) and connected with Ford's (1992) motivational systems theory and finally together empirically and theoretically worked out by Van Dellen and Heidekamp (2015). This section is titled: Free will in learning for work.

Finally, this contribution ends with a discussion and cumulates in some suggestions for necessary research to accordingly approach learning for work practically as well as theoretically.

The learning-situated mind

It is not my intention to review Stetsenko's book in this article. However, to understand and feel commitment to her plea, I feel the need to give inclusive descriptions of the arguments she uses successively to convince her readers about her stance given above in the title of this section. It is Stetsenko's and also my belief that learning only matters to people when the individual mind is involved in a manner in which it defines the past, the present, and the future contextual sociocultural situation (world) through conscious thinking and doing. Additionally, it is important to her that "the transformative collaborative practice supersedes adaptation and natural selection – dialectically negates (without fully eliminating) them" (Stetsenko, 2017, p. 199). What I will do in this section is focus on and argue from these two positions with respect to the issue of learning for work.

In her book, Stetsenko (2017) described these two positions clearly but not simply in the following five steps:

1. The argumentation starts by considering Vygotsky's project methodology as the philosophy of method. Vygotsky's project, which originated in the early twentieth century in Russia, was originally grounded in the value-driven ideals of social justice and equality. "The unique *vision* on human development, mind, and teaching-learning developed within the cultural-historical school has radical, and quite contemporary, implications for theory and methodology that resonate with critical scholarship today" (Stetsenko, 2017, p. 95). From the perspective of the current topic, two critical elements of Vygotsky's learning psychology are of particular interest. The first is the axiom that practice is the linchpin of knowledge and science. This means that all knowledge production of science (and also work) should be considered a product of the mind and a form of human subjectivity. The second concerns the ever-shifting and dynamic zones of proximal development. This element is also critical because it relates actual psychological knowledge production with the historically continuously evolving sociocultural resources within the context of work, in our context.

2. The second argument focuses on what is called "a fully *relational ontology*, or a relational worldview" (Stetsenko, 2017, p.115). Akin to the theories of such thinkers as Dewey and Piaget, this world view presents a contrast with the mechanical one which was and still may be quite dominant in the positivist approach of science. In the relational approach, however, living organisms (human as well as not human) and the world (the context) are the entities which in a dialectical manner show dynamics, process, interaction, and relation encountering the past, present, and future and possibly evolutionary development (change) and learning. This model of what life is—and accordingly some differentiated theoretical elaborations of it (Stetsenko, 2017, pp. 117–155)—brings us to the point that we can consider transformation as the driving force behind all development and learning.

3. At the centre of this line of argumentation, Stetsenko (2017) formulates that Vygotsky's project next leads us from relational ontology to a *transformative world view*. This step is quite crucial to finally understanding Stetsenko's pedagogy of contribution (see point 4). In contrast to Piaget and Dewey's ideas, development and learning here are not about pragmatic adaptation in alignment with stability and continuous social growth but should be termed active collaborative transformation of the world. Vygotsky's contribution to understanding human development and learning "is not about a purely quantitative increase of processes and regularities in the animal world" (Stetsenko, 2017,

p. 167) but "at its centre is a dialectical leap that leads to a qualitative transformation" (Rieber, 1997, p. 39, cited in Stetsenko, 2017, p. 167).

4. The next argument concerns the notion that this transformative world view absolutely needs learning agencies which take a transformative activist stance with specified ontology and epistemology. To start with ontology, the previously mentioned relational ontology shifts "to a unified (i.e., indivisible though not homogenous) *transformative ontology of collaborative praxis*" (Stetsenko, 2017, p. 174). This empirical onto-epistemology brings together people, material, and history in a dialectic manner eliminating the Cartesian polarity between human beings and the world. The idea is that human beings and the according context in practice are constantly "*moving beyond [their] status quo*" (Stetsenko, 2017, p. 179). This is the lived struggle in practice. Being, knowing, and doing are subjective and objective alike in practice. The objectivity of the world is not immanent in the subjectivity of the individuals and collectives. The premise is:

    > People simultaneously create and constantly transform their very life, therefore also changing themselves … and gaining knowledge about themselves and the world. Taking this premise in its onto-epistemological foundational role means that human activity – material, practical, and always by necessity social, collaborative processes mediated by cultural tools and aimed at transforming the world – can be seen as the basic form of human life, a mode of existence that is formative of the world and of everything that is human in humans, including psychological subjective processes such as the mind, the self, and knowledge produced by people. (Stetsenko, 2017, p. 179)

5. The transformative activist stance means that the *learning-situated mind* matters essentially. To encounter the present and the future (coming from the past) makes it necessary for people together with and in their context(s) to act and change in the right direction (working in practice). The transformative activist stance means that practice is value-driven and value-laden. Acting without a direction indicates that "we become strangely stupid" (Frye, 1990, p. 133, cited in Stetsenko, 2017, p. 231). Good or bad is an implicit part of all acting at work. An actor is intellectually aware of the moral confidence of his or her behaviour. In this respect, Stetsenko's quote from Thelen (2000) is very crucial: "The goal of development is not to rise above the mere sensorimotor but for cognition to be at home within the body." The idea is that we

follow the need to discipline the body (Thelen, 2000, p. 8), although this is very hard to do and, in the end, we may even not be successful. When mindful people dare to change themselves within the situations they are (working) in, they really contribute as co-creating individual and collective agencies. The *nature of knowing* is then defined through claiming a position and taking a stand according the past, the present, and the future (of the work to be done).

Stetsenko (2017) stresses that the "motivation is to do justice to the psychological processes being dynamic, contextually situated, distributed, embodied, and socioculturally mediated while not losing sight of their unique qualities and phenomenology" (p. 265). By doing this, the individual mind (and other expressions of subjectivity such as the self and identity; see also in particular Billet, 2010) becomes the learning mindful agency. This agency consists of attentive thinking and doing (daring, as Stetsenko suggested) with at least some constant self-awareness of being part of the world.

The transformative learning paradigm

The learning-situated mind and the transformative activist stance mean that learning for work almost constantly requires a transformative learning paradigm in collaborative practice. As mentioned above, Taylor (2017) suggested that transformative learning theory based on sound empirical research has grown so significantly that "it seems to have replaced andragogy as the dominant orientation of adult education" (p. 25). Let us see what this means from the perspective of learning for work. What is or might be transformative learning? In recent years—beyond Mezirow (1978), who might be called the founder—Taylor and Cranton (2012) suggested that transformative learning theory explains the learning process of constructing and appropriating new and revised interpretations of the meaning of an experience in the world (workplaces). From her transformative learning, King (2009) had experiences with so-called perspective transformations: "I see things really different now, I'm much more open-minded to views other than mine, I never understood what my professionalism really meant, I have more self-confidence than I ever dreamed possible, I have such a radical change in my view of issues" (p. 4). These experiences seem to have been quite fundamental and radical. In our postmodern insecure times, the transformative learning paradigm is necessary and therefore introduced here with respect to learning for work with a quite strong emphasis. Beckett and Hager (2002) already saw that postmodernity requires anticipative actions.

In earlier modern times, it looked as if human beings would be able to fix their world, but it turned out differently and the available know-how and skills were not enough to control the permanently changing contexts of our life and work. Education in schools may in some respect still be necessary for basic requirements, but in the real working lives of people in organizational contexts three questions are asked over and over again: what are we doing, why are we doing it, and what comes next (Becket & Hager, 2002, p. 23). These are questions which connect with the past, the present, and the future. We are in a risk society (Beck, 1992) of globalization, and so now more than ever in many situations and sectors people may actually feel the need to really contribute through their agency in rapidly changing collaborative practice (Stetsenko, 2017).

The transformative learning paradigm is a necessity. The paradigm goes beyond and builds upon the classical learning metaphors of acquisition and participation as paradigms of adult education. In this respect, learning for work is different from learning for life (e.g. primary and secondary education) and learning for pleasure. The differences centre firstly around the character of the (work) context and secondly on the psychological contract with the work as such. Most of the time, more freedom of choice and engagement is experienced in learning for life and learning for pleasure. In contrast, the ownership of learning for work seems to belong to educational institutions, work organizations, trade unions, professional associations, governments (policy), and maybe finally the workers (professionals) themselves. This means that the "being in context" of the work is rather strong.

What does the transformative learning paradigm mean concretely regarding learning for work? According to Mezirow (2000), transformative learning involves "how to negotiate and act upon *our own purposes, values, feelings and meanings* rather than those we have uncritically assimilated from others" (p. 8). Formulated this way, it actually means that people become people or agents of themselves delivering a product, a service, or even themselves as (co-)actor of work. This makes people more autonomous, independent, and self-reliant in their work. And people become approachable with respect to their work behaviour and experiences with their work. However, what about their own purposes, values, feelings, and meanings with respect to the work? These qualities may not have been established internally by the individual but by collectives. Indeed, that is where transformative learning in particular comes in (as repetition and/or even continuously). The transformative learning paradigm seems to be a sort of way of living. Transformative learning for work in particular is where internalization and externalization come together or may fight a struggle. According to Jarvis (2009, p. 33) and Stetsenko (2017, p. 265), this is a struggle of and in the mind.

In the mind, transformative learning takes place whenever cognition, bodily experiences (emotion), and real-life contexts (eventually in the form of memorized or foreseen future representations; see Damasio, 1994) change into new patterns of meaning, understanding, and valuing. It may seem as if this change happens sometimes by accident and at other times by will; the will comes from the actuality of the moment in which the mind's consciousness tries to handle the coming future. In the actual present, cognition, emotion, and (mindful) attention are considered to be working together. This can be on behalf of forms of rudimentary reflection (the unconscious). Otherwise, during (attentive) moments of social and open space during work, learning may present itself in the mind of individuals or collectives, probably being close to their (ever-shifting and) dynamic zones of next proximal development (Vygotsky). This learning does not, however, need to be only cognitive or mental. Moreover, the knowledge derived from the learning is not always directly explicit. Following Baumeister and Masicampo (2010), conscious individualist or collectivist mental simulations of the past, in the present, and into the future serve to learn and facilitate social and cultural interactions. This learning (and facilitation) also may contribute to the experience and identity of individuals and collectives and so become transformative. This transformative learning cannot be reduced to typical psychological, sociocultural, or postmodern theoretical concepts. It transcends these theoretical approaches. Moreover, it is restricted and regulated by contextual formal limitations (see the first line in the next section). In conclusion, transformative learning may happen for the better when the worse is no longer convenient in real-life work contexts.

Hager (2011) also discussed the three mentioned theoretical approaches to workplace learning extensively. First, in psychological theory *the what* individuals learn is understandable things. In other words, what people need to learn is somehow clear and they are accordingly able and willing to learn it. In the second sociocultural approach, the what comes from the actual situation and derives from the context in a historical and cultural sense. The what is known through and by collectives and leads individuals to learn in a direction. Third, postmodern theory tells us that the what is not just something that is in the subject (inside) or completely separated from him/her (outside), but exists through an actual ongoing interactive process and creates itself through time and living through work in daily actuality. From the postmodern perspective, this means that nothing is what it seems to be. The world is not something we are able to create at will. In fact, psychological, sociocultural, and postmodern theory can be brought together, with each offering a specific understanding of the process of adult learning. But what about the pedagogical aspects of transformative learning for work?

In a pedagogical sense, the learning-situated mind and the transformative learning paradigm come together in the identity of individuals and collectives doing their work either individually or collectively (complementary). Identity is the temporary fluid outcome of the pedagogical processes with respect to the ever-restricting and -regulating (sometime over-regulated) formalized context of work (through management and law).

Free will in learning for work?

The amount of being in the context of learning for work is high because of the formal restrictions and regulations given by labour laws and organizational (contextual) management. In this respect, research indicates that "the motivation to improve work through learning" is a very good expression (concept) in addition to the general motivation to learn and that change may be a rather crucial and constant aspect of work in general (see Holton, 2005). Learning for work is never something simple, as is often suggested by policymakers and human resource practitioners and advisors. Just learn and behave. Learning for work is complex because it does have not only one but two contexts. Moreover, the work context sometimes seems to be dominant over the personal life context whenever individuals or groups of people feel always strongly dependent on the context (as slaves did). Still, in most cases individuals have a psychological contract and relationship with those who are responsible for and represent the work. This representativeness is in a formal manner grounded in legal and ethical constraints. This contextual condition has been visualized in Figure 1 (Van Dellen & Heidekamp, 2015). It illustrates very well the psychological, sociological, and postmodern aspects of learning for work in a framework with three layers. The central layer of learning for work shows that learning for work may in actuality have transformation as a characteristic one way or another. The central ongoing process is motivational and encompasses bodily reactions (emotions) and representations of beliefs about one's own ability to become competent (doing the work well) and about the (needed) support from the context. Finally, personal ([non-]learning) goals in the present and future real-life contexts belong permanently to this central process of evaluation and decision in practice, giving meaning to actual and future behaviour.
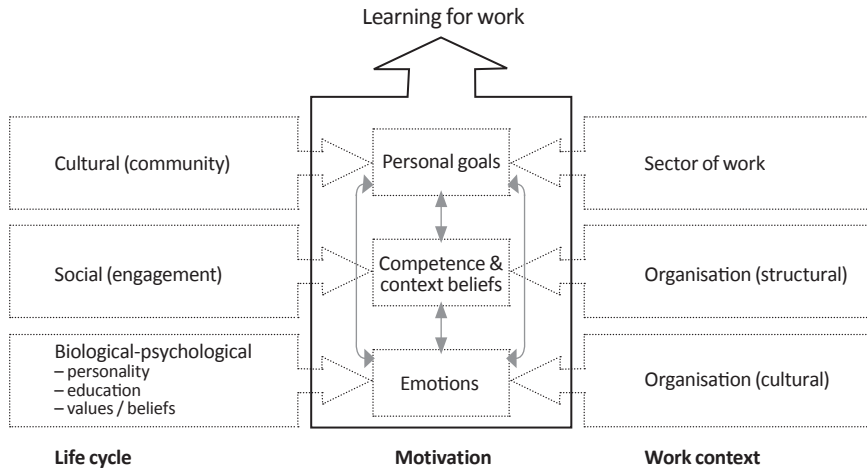
Figure 1. Learning for work (Van Dellen & Heidekamp, 2016)

The other two layers are as important as the central layer is. They represent the context of people's personal lives and the actual meaning of the context of the work (organization). They directly and indirectly represent the purposes, values, feelings, and meanings of the individual. These qualitative characteristics are the outcomes of evaluations of the past, the present, and in advance the near and far future. In the relationships with and the dialogue within and between the various levels of the layers. The characteristics (knowledge) are communicated on the different levels. On the right side, the levels represent the interdependent individual or collective (cultural) bodily experiences, engagement and organizational beliefs, and the thoughts (cognitions) of the respective work sector. On the left side, the levels represent the life cycle of individual workers. The cultural community background of individuals may more or less fit the work sector. For instance, individuals with close or distant family working in care and education understand this sector better that others and their personal goals may be naturally more in congruence with this sector than with another sector, such as the financial world. The contingency between the other layers may influence learning-for-work motivational processes.

This brings me back to free will in learning for work. As mentioned at the beginning of this contribution, Chisholm et al. (2004) and Van Dellen and Yurtmaz (2017) have suggested on empirical grounds that freedom of learning is important for the experience and outcome of adult learning. Moreover, Van Dellen & Heidekamp (2015) indicated that Dutch employees "are rarely offered an opportunity to learn what they are really interested in,

neither formally nor non-formally" (Van Dellen & Cohen-Scali, 2015, p. 731). Nevertheless, Dutch employees behaved most kindly when organizational development and management asked for learning for work. The outcomes of training and development (human resource development), however, are often not as expected. The most important reason for this may lie in the artificial separation of work and learning. Learning entangles with the educating, training, and "things that happen in the head" of the employees instead of the things that (should) happen in collaborative practice. There is not really freedom of learning but learning through outside will and causes.

Free will in learning for work can be discussed following Verplaetse's (2012) *Without a Free Will*. In this philosophical essay about responsibility, the author focused on the space in which humans falsely think they experience free will in decision-making. In this decision space, individuals experience the opportunity to decide about—in our case—learning (the chosen action): the why (the motives formulated) and the how (the effort). The intuitive idea exists that people are free in their choices for learning, with certain motives and investment of a certain amount of effort, but the choice is strongly causally determined by internal (life cycle) and external (work context) circumstances and causes (Verplaetse, 2012, p. 33). This counter-intuitive fact is hardly recognized in the theory and research on learning for work, because why can it not be a good thing (in the eyes of the people undergoing it) to choose for learning for work? So in many instances employees undergo all sorts of activities coming from the work context concerning learning. However, evaluative research has often shown that planned and organized activities are often not very effective (Saks & Belcourt, 2006). The argument I hold to here is that this lack of effectiveness is related to the messy and complex context of learning for work. Only when the work context and life cycle are in congruence enough in one respect and are dialectical in another respect may transformative learning for work take place for individuals and collectives. It is questionable whether science and research will be able to be of relevance for this contextual situation. McKenna and Pereboom (2016) gave a stark quote in this respect from Chisholm (1964):

> This means that, in one very strict sense, there can be no science of man. If we think of science as a matter of finding out what laws happen to hold, and if the statement of the laws tell us what kinds of events are caused by other kinds of events, then there will be human actions which we cannot explain by submitting them under any laws. (p. 66)

Is there more to say about the decision-making space around learning for work (and the non-existing free will), Stetsenko's (2017) learning situated-

mind, and the transformative learning paradigm? In the following final section, the various ideas will be brought together in some final suggestions about learning for work from the past, in the present, and into the future.

Conclusion and some temporary suggestions for practice, research, and theory

The conclusion of the argumentation thus far may be that transformative learning for work happens only in the curve between enough autonomy (inside the person's mind; see the left layer of Figure 1) and enough connectedness (outside the person but inside the collaborative practice; in the right layer). During transformative learning, three aspects come together dialectically in an urgent sense. First, the collective ethical meanings of restricting rules and legislation of the work(ing situations) (conventions). Second, the individual/collective regulation of emotions in this respect (bodily tension, attention, and cognition). Last, the relational circumstances in the working places in which autonomy (separation from the context: exclusion) and connectedness (melting together with the context) play a significant role of tension (transferred from Verhaeghe, 2012, p. 101; based on Freud and formulated with respect to developing a healthy identity). The sense of urgency is felt in the mind and more or less congruent with the actuality of the work context. This represents the dynamic zones of proximal development in the individual workers and the collectives of workers in the collaborative practice. Stetsenko (2017) defined this condition as the transformative active stance, which is value-laden and value-driven. In our example of learning for work, this value-directedness may a little overestimated if it, as Stetsenko, is concerned with such universal values as social justice and (in)equality. The collaborative practice of work and the economic condition of it means that learning for work is not something that is strictly voluntary. Collective restricting formal rules and legislation behind these rules are quite dominant. This leads to the conclusion that learning for work as depicted in the model of Van Dellen and Heidekamp (2015) requires a great deal of scaffolding between the left and right layers. This is the pedagogical professionalism urgently needed in work organizations and maybe even in society as a whole. The latter would be true in the case of empowering people for the sake of social justice and (in)equality, which is Stetsenko's stance.

Transformative learning for work in practice may become more and more a necessity in many situations. However, to come to transformative learning in work practice a strong pedagogical climate is needed. How does such a climate look? Let us mention a few characteristics. There is openness with respect to all sorts of emotions—negative emotions in particular—while

working (together). Emotions are, however, regulated in an active and conscious manner through, for instance, dialogue concerning the actual collaborative practice. Moreover, Baumeister and Masicampo (2010) emphasized that well-considered inner cross-talk, (social) communications, and sequential simulations are ways to bring together bodily experiences, thoughts around experiences, and knowledge gains about those involved and the world around them. Learning takes place when you objectify your subjective experiences, leaving habitual mental thoughts and personal emotions behind (Mezirow, 1978). To mention some concrete issues: knowledge about knowing, speaking and understanding knowledge in the same manner, fulfilling psychological needs. A physical and psychological restriction on doing this is that humans can only do it for about five percent of their daily time, as otherwise they quite quickly become exhausted. Is this the reason why in some sectors of work, for instance education and nursing, workers experience more burnout? Finally, storytelling about working together and experiences connected to it may also be of help to the pedagogical climate.

For future research of transformative learning for work, two issues seem to be of special importance. The first concerns the decision-making process (space) behind the (transformative) learning for work and the second the role of the significant other(s) in or even outside the work context. As argued in this article, transformative learning for work seems to never be a free choice of will by the learning actor(s). Nevertheless, actors do not experience compulsion when they choose learning (change). This ambiguity is a dangerous characteristic of practice. It is dangerous because people in either the right or left layer of the model of Van Dellen and Heidekamp may use this characteristic to manipulate or indoctrinate the other layer. That is exactly why there are rules and legislation around the labour market. Despite these, it is of great interest for our understanding of (transformative) learning for work to investigate the decision-making processes behind it (see Holton & Naquin, 2005 in this respect for human resource development interventions). The second issue is connected to the first. In transformative learning for work, the support from a significant other is very important. Transformative learning starts from significant emotions to learning-based certainty (of the security of the space of work) as well as uncertainty (of one's contribution). Connectedness with significant and relevant others may help people to dare to change. These others play an important initiating and continuing motivational role. Research into the fundamentals of this pedagogical role is of great interest.

Finally, theory? "There is nothing as practical as a good theory" (Lewin, 1943) is the over-quoted sentence of Lewin. Theory is an abstract description of reality that makes it possible through understanding and explanations to act in practice in a better way than just by chance. In the case of (transformative)

learning for work from the past, in the present, and into the future, such a theory is neither available nor plausible. Important reasons for this include the changing reality and the messy and complex work context and the various life cycles of individuals. Nevertheless, it would be a good idea to involve pedagogical professionals more in the world of learning for work to regulate and bridge the non-existing gap and division between work and learning. This may be even a matter of effective use of investigations into learning for work.

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