Against Bisected Learning

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Abstract

As modern society developed, educational theory and practice has been informed by a concept of learning that divides content and method, the "what" and "how" of the act of learning. The "what" of learning is largely taken out of the hands of the learners, while their possibilities of participation in defining the process are confined to questions of "how" to learn. Based on critical action and learning theory, we analyze in this article how such bisection of learning undermines substantially the unfolding of the human potential to learn and present an approach as well as basic concepts toward a new non-bisected language of learning.

Keywords

Dichotomy between subject matter and method of learning; subjectivity and learning; agency; persons' conduct of everyday life; student-centered learning; problem-oriented project learning; situated and participatory learning.

Seen from a history of science perspective, one of the most important achievements of Critical Psychology consists in developing a theoretical and methodological conception able to articulate the person in their internal relationship to the world. Human beings are not regarded as abstract, isolated individuals, but understood as unfolding their everyday life in relation to nature, culture, technology and society – an entanglement where the concept of agency is pivotal. Human beings do not only experience and act *in* the world but, on the basis of the human psyche's particular qualities and the specific agency this facilitates, they *create* their social world in and through which they live their lives. Such a conceptual approach allows a comprehensive and integrative view of the vital dimensions in human life including the requisite preconditions for producing and appropriating the everyday world. The human ability to learn represents an essential moment in agency, a prerequisite for production as well as

appropriation. Due to the societal world's openness and artificiality, learning – like all other dimensions of human agency – is distinguished by its openness with regards to the subject matter. Klaus Holzkamp refers to this substantial indetermination as one of the fundamental characteristics of human learning and describes it as "autarkic learning" (*autarkes Lernen*) (1983).

Learning is initiated, above all, by the fractures and contradictions in individual and social contexts of agency. Such fractures and contradictions are nothing unusual; they have always been part and parcel of the conditions of human life. However, since the twentieth century, its extent has changed. Today, we are confronted with discrepancies which have created an ominous imbalance in the entire human context of action. The degree of this danger has been recognized in the social and human sciences, as well as the natural sciences (see e.g. Anders, 2018/1980; Haraway, 2016; Latour, 2017; Papadopoulos, 2018, or Warning to Humanity: A Second Notice, Ripple, et al. 2017, a declaration signed by over 15,000 scientists). Evidently, we have arrived at a historic point where we need to fundamentally rethink ourselves and the local and global social relations we have produced. Aside from many other things, such rethinking also requires reflecting on the way we understand learning. As modern society developed, educational theory and practice has been informed – and still is, even today – by a concept of learning that divides content and method, the "what" and "how" of the act of learning. The "what" of learning is largely taken out of the hands of the learners, while their possibilities of participation in defining the process are confined to questions of "how" to learn. We will argue that such bisection of the activity of learning undermines substantially the unfolding of the human potential to learn – something we can no longer afford in future society. Tomorrow's society requires an educational theory and practice which contributes to cultivating a participative and problem-oriented learning, including the ability to independently identify relevant problematic issues in the contemporary world, analyze them in their contexts, and work with them critically and constructively.

Bisected learning: Its problematics and concepts to overcoming it

Despite all critique down the years, the model of transfer and internalization of knowledge is still widespread in educational theory and practice. Learning is regarded as accumulating and internalizing information about the external world, and a transfer of knowledge from a teacher to a learner, with the teacher defining the content of that knowledge. In this model, what the teacher teaches is what the learner learns — a notion actually distorting the practical reality of learning.

Learning is equated and confused with teaching, and such a "teaching-learning short circuit" (Holzkamp, 1993) systematically ignores the learners' subjectivity and their world of experience and agency, setting the teacher as the decisive subject of learning. The transfer model is not problematic because it assumes teaching and learning are in some way related. Rather, the difficulty lies in assuming this connection is based on the principle of transmission, with knowledge or skills transmitted one-to-one from a knower/skilled person to someone without that knowledge/skills. This process is often explained through a mechanical analogy, where the mind of the learner is seen analogously to a computing machine with an input of information. Such information is then stored in the memory and, when needed, can be called up as an output. But learners are not machines. They are living beings who are, for all intents and purposes, the decisive subjects of the learning activity. The learning process is driven by their preconceptions, questions and curiosity, and – against the background of their lives – the content taught is very differently grasped and experienced. In other words, the subject matter of learning initiates very diverse learning processes in the learners. Any theory of learning which does not regard learning as the activity of the learner, but sees it as an isolated function, causally determined by teaching and construed as disconnected from the learner's subjectivity and conduct of everyday life, falls short of its aim. In the transfer model, the fundamental problem is that the content of learning can only be viewed as determined by the teacher. The subject matter components of the learning process are blocked off from the learners, the "what" and "why" of learning is pregiven for learners and their possibility of influence limited to the "how" of learning, to method and performance. We refer to a theory and practice of education which reproduces such a systematic division and disconnected juxtaposition of the "what" and "how" of the learning activity as bisected learning. Rather than implying that teachers do not also have a responsibility for the content of learning, this term highlights how genuine learning (as discussed in more detail below) presupposes the possibility of learners to dispose not solely over the "how" of learning, but also the "what". In bisected learning, the activity of learning is taken out of the hands of the learners and reduced to a dependent act, purely operational and performative, where the full potential of the human ability to learn cannot come into its own. Not only does this spoil the pleasure of learners in learning, but – as mentioned above – due to the social challenges we are facing today, we cannot afford this kind of systematic constraint on the human being's ability to learn. But what exactly is the distortion in bisected learning? How could it be overcome and an alternative language of learning be developed?

In the tradition of Critical Psychology, learning (as already indicated) is not understood as a transfer and internalization of knowledge, but as a crucial moment in human agency and the creation of the societal world. Moreover, this moment also includes developing an access to as well as to appropriate the world, created by us as human beings through our own actions. In brief, learning is an integral part of persons' conduct of everyday life including the development of their knowledge and agency (Dreier, 2015; Schraube & Marvakis, 2016). Based on a theory of agency and social practice, it becomes clear why learning would, as an isolated function of the mind and a purely individual process, remain underexposed. Learning is a core dimension of human action in societal context. It represents a contextual as well as a cross-contextual activity not only taking place in classrooms or lecture halls, but at very different places in social life. It is an activity which can only properly be grasped in and from its connection with the learners' conduct of everyday life, which encompasses various psychological functions. Yet learning is not just an essential dimension in persons' conduct of life, it is also constituted by it. Learning has its origin in the fractures and contradictions, problems, issues and dreams in our everyday activities and conduct of life, and represents a process not only based on particular learning stances, a certain cyclicalities as well as daily routines, rhythms and habits, but one that can also be actively structured, arranged and organized by the learner on the basis of their conduct of life.

Through this approach, then, learning can be grasped as theoretical and practical ways of discovering the world which are anchored in our conduct of everyday life – as a constantly ongoing process, more or less coincidental and *unintended*, and described as "osmotic learning" (Bourdieu & Passeron, 1979) or "incidental learning" (Holzkamp, 1993). In a certain sense, we can hardly avoid constantly learning – for example, simply by strolling a city's streets, we get to know the city, even when that was not our principal intention. But learning can also be a deliberate, planned activity, an *intentional* process described accordingly as "intended learning" (Holzkamp, 1993) or "learning labor" (Rubinstein, 1977/1946). In this case, the starting point for the process lies in problems of human activity, in conflicts or breakdowns of understanding and it takes in the act of learning a characteristic form. An example would be a person who cannot windsurf, but would like to (i.e., this not-being-able-to poses a conflict in everyday activity), and so initiates the intention to learn.

Rather than incidental and intended learning being totally independent processes, they are two sides of the same coin and may even appear together in an act of learning (Maiers, 2019).¹ Every human activity is imbedded in the

¹ Or with the words of Sergei Rubinstein: "Thus, there exist two forms, or to be more precise, two methods of learning and two forms of activity, which lead to the

subject's concrete needs and reasons, and so each learning activity also has an intentional dimension. The intentionality may not be explicit, and need not necessarily be properly clear to learners themselves. Even when I tell myself that I am doing something without any definite intention – enjoying life and the journey is its own reward – this particular action is still first set in motion by an intention. The other way around, intended learning may also include accidental and incidental elements discovered quite by chance or appearing during the process – for instance, where a coincidental situation enables you to first fully grasp something clearly. Incidental and intended learning are *analytical* concepts accentuating different forms of the learning activity. In a more or less pronounced way, all learning activities are entangled in the learner's intentions – whereby here intentions are not thought of in individualistic terms, as something in the subject, but as situated and as something which unfolds in and through the relationship between subject and world.

Learning is distinguished, then, by its more or less explicit *intentional* character. For this reason, learning is not simply a procedure, operation or activity, but an action. Learning not only has its roots in everyday action, but itself represents a particular form of action – and this is why one can rightly talk of the act of learning.

When we observe the process of human action in more detail, we notice four basic elements. (1) An element of content – the "what" of the action (for example, I need to go to the local market to buy something), (2) groundedness, the "why" of the action (e.g., I need something to eat). These two dimensions of the act, both more related to content, give the action a particular direction, creating the basis for (3) the more methodological, operative and performative elements, and the question of "how" the subject will put the action into practice (e.g., how will I go to the market? Which route? Walking or by bike?), and finally (4) an evaluative element, assessing the action and whether what it initiated was also achieved (e.g., I actually arrived at the market and could buy some food).

For analytical purposes, these four elements of the basic structure of every action can be distinguished from each other, and each considered individually. Nonetheless, in terms of the action itself, they form a logical unit. Given their internal coherence, they cannot be understood psychologically if they are separated from one another. It would make no sense to imagine an action without an element of content, since without a 'what' there would never be a "why", and

acquisition of new knowledge and abilities. The one of them is addressing specifically its goal, which is the appropriation of these knowledge and abilities. The other one has the mastery of these knowledge and abilities as its result, by realizing other/different goals" (1977/1946, p. 741, translation by the authors).

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without a "what", the "why" and "how" would be left totally up in the air. Consequently, it would no longer be possible to talk of a real action in any meaningful way.

In action theory, this unit has been described in detail as, for example, in the work of Anthony Giddens. "Action," he emphasizes, "does not refer to a series of discrete acts combined together, but to a continuous flow of conduct" (1979, p. 55). He describes the structure of the subject's flow of action as a unity of components of content ("intentions", "motives" including "reasons, why they act as they do"), methodological and performative elements as well as elements of "reflexive monitoring" (1979, p. 56ff; 1984, p. 3ff).

This fundamental structure of action applies equally to the activity of learning. Since, due to its intentional character, it represents a specific form of action, the learning process is also constituted by these four basic components. As mentioned above, although distinguishable analytically, in psychological terms these necessarily form a unit and only constitute a distinct act of learning as a totality. Consequently, the idea of learning as an activity where the learners can only relate to the "how" and not the "what" and "why" is conceptually nonsensical – and also illustrates why the influence of the learner on the subject matter is so decisive. Bisected learning undermines the practice of learning, and with it the actual unfolding of the human ability to learn.

In the history of learning theory, the problematic nature of the dichotomy of subject matter and method, as well as the insight into the analytical unity of these elements, is far from unknown. Klaus Holzkamp, for example, emphasized the vital importance of the *learning problem* and the learner's influence on the elements of content in the learning process. Learning does not simply start when teachers place learning demands on the learners. Demands to learn only turn into a learning act when learners consciously adopt such demands as a learning problem, and they make sense for the learners themselves. The roots of learning lie in the learner's formulation of the content of the problem (1993, p. 183ff).

Over 100 years ago, John Dewey also described the internal connection between the "what" and "how" of learning, arguing for integrating the dimension of the subject matter democratically into educational practices. Against the background of a dualist model of human being and society, widely accepted at the time, he recognized how this also reproduced a separation of subject matter and method in educational practice. In contrast, he put the case for connecting the "subject matter and method with each other" (2008/1916, p. 145), and stated: "The idea that mind and the world of things and persons are two separate and independent realms — a theory which philosophically is known as dualism — carries with it the conclusion that method and subject matter of instruction are separate affairs ... The notion of any such split is radically false" (ibid., p. 145).

For Dewey, the concept of experience provided the key to understanding the unity of "what" and "how" in learning. He regarded experience as the fundamental basis of learning, and so this was where he located his critique of the separation of subject matter and method. "Reflection upon experience," Dewey notes, "gives rise to a distinction of what we experience (the experienced) and the experiencing – the how. When we give names to this distinction, we have subject matter and method as our terms ... This distinction is so natural and so important for certain purposes, that we are only too apt to regard it as a separation in existence and not as a distinction in thought" (ibid., p. 147). The process of learning is not based on combining subject matter and method as separate elements, but on experience as a unity in movement. "Experience," he explains, "is not a combination of mind and world, subject and object, method and subject matter, but is a single continuous interaction of a great diversity (literally countless) of energies" (ibid., p. 147). Consequently, Dewey also fiercely criticizes the "evils in education that flow from the isolation of method from subject matter" (ibid., p. 148).

Hence, overcoming dualistic models and systematically integrating the learner's own experience, problems and actions represents a crucial step in developing learning theory. This also clearly shows why the central subject of the learning activity is not the teachers but the learners (which does not mean that the activity of teaching is not important for learning, as we explain below). Over the last years, this fact has been increasingly acknowledged in educational research, and the discussion is ongoing over a shift in perspective and whether the focus in research should not be realigned from the teacher to the learner. In this context, concepts such as "student-centered learning" are gaining importance. The question then arises of how far these modes of thought which are trying to include the subjectivity of learners in understanding the process of learning actually succeed in overcoming bisected learning.

Bisected learning: In "student-centered learning" as well?

Not only have the weaknesses in the traditional understanding of learning been recognized in learning theory, but also in educational policy. For some years now, there has been agreement on the European level that "student-centered learning" (SCL) is a decisive principle in improving the quality of teaching and learning. In 2010, the European Ministers in charge of Higher Education issued a declaration stating: "We call upon all actors ... to foster student-centered learning as a way of empowering the learner in all forms of education" (EHEA, 2010, p. 2). Here, then, learners are no longer passive recipients of information, but

instead are to be taken more seriously, with their engagements and actions, differences and needs, and ought to be given the opportunity of actively shaping their learning processes including the education practice. The European Students' Union paper on the current state of SCL notes that: "Conventional learning ... tends to consider students as passive receptors of information, without consideration of the need to actively participate in the learning process" (ESU, 2010, p. 8). In contrast, student-centered learning enables "students to shape their own learning paths and places upon them the responsibility to actively participate in making their educational process a meaningful one" (ibid., p. 9).

Such a movement towards systematically integrating learners in the process of learning including the development of educational practice sounds convincing. But it also harbors new pitfalls. Learning can be understood as solely individualistic affair of the learners, a consumer product subject to the logic of the market, where the particular significance and general social responsibility of teaching is pushed into the background, which then only appears as an accessory to learning. More than almost any other writer, Gerd Biesta has analyzed these dangers in detail. He writes of how a new language of learning can lead to a "learnification" (2013, p. 62ff) of educational practice, above all when integrated into learning-teaching relations shaped by the economics of neo-liberalism. In such a situation, the learner is turned into a consumer, and the educational institution into a service provider whose task is to offer the learners what they "need". Biesta explains: "One of the main problems of the new language of learning is that it allows for a re-description of the process of education in terms of economic transaction, that is, a transaction in which (i) the learner is the (potential) consumer, the one who has certain needs, in which (ii) the teacher, the educator, or the educational institution becomes the provider, that is, the one who is there to meet the needs of the learners, and where (iii) education itself becomes a commodity to be provided or delivered by the teacher or educational institution and to be consumed by the learner" (2005, p. 58).

The concept of student-centered learning incorporates the subjective dimension of learning and expands the potential for learners to influence the learning process. As yet, though, such opportunities for influence have been limited solely to the operative elements, to the "how" of learning. As a result, this notion of learning remains within a framework fixated on *instruction* reproducing bisected learning in a perfidious way – namely, through the students' active participation.

The bisected nature of SCL becomes clear when we consider central concepts of this approach such as "self-regulated learning" (ESU, 2010, p. 11) and the call for "self-management". Learners are now required to independently take on themselves the functions of regulating and managing the learning

process, though without disposing over the social power to decide on the subject matter of learning. Through this implicit bisection of disposing over learning as an act in its entirety, the learners are left only with the control of implementation and, in the final analysis, conforming and submitting to the given subject matter. Even the idea of "problem-based learning", considered a key element in SCL (ESU, 2010, p. 11), is not about issues related to the subject matter itself which students identify independently and investigate in their learning process. Instead, this is a method of integrating current issues from the real world to facilitate more effective learning (ibid., p. 11) (This may be a good idea as such, but it certainly does not imply that learners have more control over the subject matter and determining the issues dealt with in the learning process).

So, this self-regulating and self-organized learning turns out to exclusively locate the learner with the *implementation* of learning, the regulation of the "how" of learning, and what one ought to and must learn. Rather than this self-regulation referencing the act of learning in its entirety, it solely refers to the *self* and controlling the moment of *implementing* the learning of *content* that is still prescribed. In this way, SCL is less a new subject-sensitive learning theory than a shift in educational disciplinary strategies within existing structures which, though, are distinguished by the particular modern characteristic of demanding *and* enabling more subjectivity from the learner. When discussing the new language of learning, Biesta concludes: "Learning has to a large extent become an instrument of domestication, ... if not ... an instrument of stultification" (2013, p. 70).

Biesta's criticism does not include any suggestions on how to further develop the concept of learning. His focus is far more on rediscovering teaching (2017). The central task of teaching, he argues, is not a transfer of knowledge and an act of controlling the learners, but to open up possibilities for students to discover what it means to exist in and with the world as subjects developing their human potential. "Teaching ... is interested in the grown-up subject-ness of students," he notes. The question is how to create "existential possibilities through which students can encounter their freedom, can encounter the 'call' to exist in the world in a grown-up way, as subject" (2017, p. 6). Hence, teaching does not imply understanding the learners as consumers, but as subjects, and this, as he explains, also means, "a refusal to accept any claim to incompetence, particularly if such claim comes from the student" (2017, p. 6). By emphasizing the learners' "grown-up-ness" as acting subjects, Biesta indicates how, from his perspective, it would be possible to overcome bisected learning – and indeed he does argue for overcoming the dichotomy between subject matter and method: "The educational question is ... never just about how to do things, but always involves judgements about what is to be done" (2013, p. 8). He then emphasizes:

"A major problem with the language of learning ... is that it is a language of process, but not a language of content and purpose. ... It is a language that makes it more difficult to ask questions about content; it is a language that makes it more difficult to ask questions about purpose; and it is a language that makes it more difficult to ask questions about the specific role and responsibility of the teacher in the educational relationship" (2013, p. 127).

When Biesta writes against learning (2005; 2006), he is not fundamentally rejecting the idea of learning, but actually argues against a theory and practice of bisected learning. Even if he does not develop learning theory further, he is well aware that every theory of teaching always requires a concept of learning – and not only because teaching itself represents a learning process, but because teaching refers to learning and the idea of two mutually independent processes would be a fiction. "My critique of the politics of learning can itself be understood as an attempt at transgression," Biesta writes, "I still want to be open to the possibility that learning can also work for the good ... The crucial question is where learning can work for us, rather than that we have to work for learning" (2013, p. 76). We now build on such an attempt to go beyond student-centered learning and show how, on the basis of Critical Psychology and an analysis of the particular form of learning from the standpoint of the learner, a language of learning could be imagined and developed beyond bisected learning.

Participatory and problem-oriented learning: Theorizing learning from the standpoint of learners

Initiated by the fractures and contradictions in the conduct of everyday life, the learning process – understood as an activity of the learners – steps out of the stream of everyday action and takes a detour or "learning loop" (Holzkamp, 1993), trying to attain the knowledge or skill we are lacking – and ultimately, if everything works out, expands our everyday action and conduct of life. This *detour*, which is itself, as described above, a particular form of action, *represents the act of learning*. As Holzkamp explains: "In general terms, learning is a key means of how I cope with life, and it always becomes relevant when I ... cannot come to grips with concrete problems in the stream of action in everyday life directly, but need to insert a learning loop, i.e., take the action problem as a learning problem. Viewed in this way, learning is directly aligned with my own interests in determining the conditions of my own life, through learning I want to and have to expand my access to the relevant aspects of my everyday world since only in this way can I handle my life and ... gradually reduce the constraints on my possibilities of life. In this context, my learning actions ... are expansively

grounded, i.e. motivated by the link between learning as discovering the world, expanding my ability to influence the conditions of my own life as well as increasing life quality" (Holzkamp, 1993, p. 445, translation by the authors). Since the subject matter of learning, which Holzkamp refers to as the "learning problem", has its roots in the learner's conduct of everyday life, it is subjectively constituted. However, this does not mean that the learning problem implies an individualistic concept, a variation of intrinsic motivation or something similar. Instead, the formulation of the learning problem's content arises from the learner's social and societal world of experience and action. Due to their subjective anchoring in the world, developing learning problems can (but does not have to) require dialogue with others. Such a dialogue is not just a means to grasp and refine learning problems more precisely, nor is it solely useful as learners themselves have their own limits and are caught in prejudices and common-sense modes of thinking. Instead, it is also needed since essential learning problems profoundly relevant to society may be located beyond the learner's immediate horizon of experience and action (Haug, 2003, 2009).² The nexus of learning problems always implies a certain degree of transcending the immediate as well as expanding horizons, a fact that in today's extremely complex local/global world gains a new significance. For that reason, the dialogue with teachers is certainly necessary for learners to identify and develop the learning problems. Here, though, it is crucial to distinguish between *demands* for learning and acts of learning. Learning demands do not automatically become a learning problem and so lead to the act of learning. Learners themselves have to decide that the learning problem makes sense for them, and see they actually have something to learn through the learning act. "Learning does not simply start of its own accord," Holzkamp underlines, "when learning demands are placed on me by some third party; my learning can by no means be planned for me over my head by some responsible instances (such as teachers or school authorities). Learning demands are not by themselves already learning actions, but only become learning actions if I can consciously adopt them myself as a learning problem, which in turn at least presumes that I realize that there is something here for me to learn" (1993, p. 184f, translation by the authors).

² For Rubinstein (1977/1946) too, the activity form "learning" does not rely primarily on accidental and/or individual initiatives and necessities for action (p. 740). Learning-labor – being a moment of participation – is for him always and in multiple ways interwoven and mediated, furthermore, it is supported by a "whole societal organization" (ibid., p. 740): "The learning process does not run spontaneously. It is realized through an educational process. Learning is the one side of a substantially social process of transformation/education. A double-sided process of transference and appropriation of knowledge" (ibid., p. 741, translation by the authors) (detailed discussion see Dafermos & Marvakis, 2011).

The insight that learning needs to be understood from the content entails putting learning theory the other way round. This step is a precondition in developing a concept of learning beyond bisected learning. From here we can rethink the particular form of learning as an action in its entirety and as an activity of the learners. Since Klaus Holzkamp's theory of learning, unlike any other, offers a comprehensive and systematic account to such a conception, we take three key concepts in his theory as a basis to delineate the contours of an understanding of learning which integrates content, reasons, method and evaluation.

Learning stance and learning principles. When learners recognize a certain learning problem as their own and, for example, plan to learn how to windsurf, this always involves a change in and realignment of their conduct of everyday life. Learners re-arrange and re-organize their everyday life in relation to what they would like to learn, and develop principles to help them learn what they want to. Each diverse learning content requires a particular learning stance as well as certain learning principles. To learn to windsurf, for instance, I need to arrange my life at least to make some time for it so I can focus on learning, and also think of the principles for how I can best learn (for example, first trying to stand on a windsurfing board in water to develop a feeling for balance). Likewise, the intention of "wanting to study psychology" implies a certain learning stance and learning principles. These, though, will be different from "wanting to learn to windsurf", probably more complex and comprehensive since I will become a "student" and "learning psychology" will be a central plank in my conduct of everyday life. The concepts of learning stance and learning principles address the question of "how" in learning and so, in a certain sense, also include processes of self-regulation and self-organization, but relate them to the learning content and envisage the learning stance and principles starting from the learning content. Holzkamp notes: "Certainly, learning principles are closely related to regulatory learning *strategies*, yet in contrast they are defined by their relation to the subject matter ... Hence, for example, the principle of 'first practice slowly' is the result of the meaning structures attached to playing the piano. ... To realize the meaning structures of 'high jump', or some similar sport, 'first practice slowly' would hardly be a suitable learning principle. ... Only in as far as I am clear myself about the particular learning principle to be realized for the specific learning content can the question even arise of appropriate regulatory learning strategies for the most favorable approach to the related action" (1993, p. 187, translation by the authors). The question of the "how" of learning, the particular learning stance and which learning principles and strategies are appropriate is thus determined by the learning content, the "what" of learning. However, the specific structure of the "how" of learning is also dependent on the

reasons for learning, the "why" of learning. With the concepts defensive and expansive learning, Holzkamp provides a language to reflect this connection in detail.

Defensives versus expansive learning. Just as in every human action, the act of learning also has reasons. Reasons for action are always "first person" reasons, i.e., they are always "my" reasons. For example, if I want to learn how to windsurf, then "I" have particular reasons for that (and not somebody else). This does not mean, though, that I have necessarily clearly elucidated each one for myself, or that there is only one reason. Moreover, my reasons may also be different from those of a friend who also wants to learn to windsurf. In his analysis of the subjective reasons leading to the act of learning, Holzkamp distinguishes between two characteristic patterns of reasons involved in identifying learning problems and pursuing the "detour" of learning – defensive and expansive reasons for learning.

Defensive reasons for learning are related less to the subject matter than keeping negative effects, encroachments and threats at bay, or defending the possibilities in life already achieved. For example, I want to learn to windsurf because I am bored on the beach and there's nothing else to do (so warding off the feeling of boredom), or I want to study psychology so I can earn a lot of money later (a defense against the threat of possible poverty), or I learn because otherwise I can expect certain sanctions, or I take part in a course because I need to have attended it to complete my studies. Defensive learning is primarily directly by external factors and largely removed from the subject matter itself. As such, defensive constellations of reasons can even take the extreme of hiving off the learning problem altogether, leaving just a problem of action (without a learning action), as in for instance the question: "How can I pass an exam, whether I learn something in the process or not?"

In contrast, expansive reasons for learning are related to the learning content and the subject matter to be learnt. For example, I want to windsurf because I love the sea and imagine it must be fantastic planning across the water on a surfboard; or I am interested in people and their strange doings in the world, and so I'd like to study psychology to understand that better. In expansive learning, learners accept the anticipated efforts and difficulties involved in every act of learning since they assume that an increased access to the world will, at the same time, expand their own potential to influence relevant aspects of the world and lead to greater subjective life quality. In expansive learning, the learning process is not primarily directed to external demands, but to the factual necessities which emerge in the process of engaging with the content of the learning problem and the learning object, which is still partially inaccessible. "All learning (to overcome a learning problem)," Holzkamp explains, is

"directed to expanding access to the world and increasing influence on the world, in other words, the intention itself is 'expansive learning'" (1996, p. 125, translation by the authors).

Defensive and expansive learning represent analytic concepts, i.e., rather than being concepts to externally classify or evaluate the learning process of others, they are a means of gaining an understanding of learning processes from the standpoint of the learners. The defensive and expansive reasons for learning are not mutually exclusive; both may be present in one and the same act of learning. The subjective constellation of reasons is critical in the decision on *how* something is learnt – whether done as fast as possible, or whether and how far I engage with and open myself to the learning object, in brief, which learning stance is taken, and which learning principles applied. The concepts defensive versus expansive learning clearly illustrates the importance of the "why" in the way the "how" of learning unfolds.

Expansive acts of learning are future-directed; learners want to be able to do something they were previously unable to achieve. This process of "not yet knowing/being able to" but "wanting to know/be able to" comprises the *decisive movement in non-bisected learning*, and it unifies the subject matter and methods. When John Dewey emphasizes that learning is about experiencing constructions which require new constructions and involves the expansion and new construction of pre-understandings, he is describing the structure of this movement (1997/1936). Holzkamp identified this process with the concepts *affinitive* and *definitive learning phases* (1993), since here the aim is to grasp and realize the *connections* and *affinities* in the learning problem.

Affinitive and definitive learning phases. As the crucial movement in the act of non-bisected learning, the affinitive learning phase starts from the learning problem and the point where we, in our everyday flow of action, have reached an impasse and so take the detour of learning; we attempt to focus on the matter, think ourselves into it and give ourselves the chance to gain traction in our understanding of it. Due to the still partial inaccessibility of the learning object, the process of opening up to it constantly leads to unforeseen difficulties. For this reason, learning cannot simply be successfully achieved by straight curriculum planning and linear pursuit of anticipated learning goals. Instead, making goaldirectedness an absolute often leaves one caught up in just that one-sidedness, fixations, etc. which expansive learning seeks to overcome. Consequently, in genuinely productive expansive learning the goal-directed learning process always has to be supplemented by an affinitive learning movement in the contrary direction – an explorative movement of de-fixation, a gaining of distance and overview, withdrawal, reflection, etc. As anthropologist Tim Ingold (2016) also highlights, learning is more an "attentional" than an "intentional"

process. For Holzkamp, affinitive learning phases require "the absence of threat, stress and pressures, i.e. the possibility of trust and, above all (including all of these), peace and privacy" (1993, p. 485, translation by the authors). The *definitive learning phase* is the complementary process to the affinitive phase, and in it we center this openness, synthesize the essential from profusion, and take the learning problem to a new level – until new difficulties arise on this level making an affinitive learning phase necessary again. Hence, affinitive learning, including this interplay with definitive learning, is the decisive movement in the learning process. It is, as Holzkamp emphasizes, the "constitutive moment in a learning stance of expansively engaging with the object of learning" (1993, p. 481, translation by the authors). Without it, there can be no real learning, no creativity and innovative thought.

In Holzkamp's theory of learning, the main focus is on elaborating the particular form of the act of learning as a process of the learners, and analyzing this in the educational context of present school practices, whereas he doesn't explore much the act of teaching as well as the connection between learning and teaching. Learning, however, does not exclude teaching – quite the contrary, without learning there is no teaching, and without teaching there is no learning. Teaching can become nothing short of a prerequisite for affinitive learning and overcoming bisected learning. For this reason, we conclude by turning to the concept of the *fluidity of learning and teaching* and why learning in a non-bisected perspective also includes understanding the internal connection between learning and teaching.

The fluidity of learning and teaching as a fundamental element in affinitive learning. In educational institutions such as schools or universities, the relations between learning and teaching have a particular form and structure, and are seemingly activities clearly differentiated from one another and bound to specific groups of people. On the one hand, there is the activity of learning, and on the other the activity of teaching. Consequently, the relationship between learning and teaching can be described in terms of the functional positions (or workrelated positions) of people acting: the learners become "pupils" or "students" and those teaching are then "teachers" or "professors". Accordingly, Holzkamp and Biesta each focus in their work on one of these activities and, in a certain sense, that also makes sense - and not just because the person's functional position reflects the reality of today's educational practice. It also seems appropriate since human life in the modern world has become so complex that educational institutions have become essential, places where the knowledge and skills required for sustaining and developing social life are systematically taught and learnt.

However, a glance at the history of learning shows that not all learning conditions were structured in this way. The original basic form of pre-institutionalized learning as it crystallized in people's conduct of life and everyday practice did not constitute the relationship of learning and teaching as *functional*, but as *logical*. The learning process of individual subjects is always a social process, and situated in relation to others, whereby it develops as a constant back and forth between learning and teaching in and between people. This *fluidity of learning and teaching* represents a fundamental element in affinitive learning and the nucleus of a productive and vital practice of learning (for more discussion on this, Marvakis, 2014; Schraube & Marvakis, 2016).

Holzkamp does not systematically analyze the relationship between learning and teaching. However, his concept of *cooperative learning* already describes key moments in the transition from the more fixed functional positions to the fluid back and forth of the logical positions of learning and teaching in expansive learning. "We [use the term] *cooperative learning*," Holzkamp explains, "for interpersonal learning relations in which – in the interest of unhindered expansive learning – asymmetries concerning knowledge or skills of the participants are not removed, but always accessible and liable for justification through knowledge-seeking questions. Within this process, the better arguments seem no longer be bound to the more superior person, but can shift from person to person, but also within the person" (1993, p. 509, translation by the authors).

With the development of formal, institutionalized learning conditions and educational practices, the logical and fluid positions of learning and teaching were expanded by functional positions. This was undoubtedly productive as well, bringing together those, such as faculty at universities with highly-developed knowledge and skills as well as the task of research, with those keen to learn, and it harbors a new quality and potential of expansive learning processes. This new form, though, already has inscribed in it the danger of tending to shift to understanding learning as a transfer model, a danger only further intensified by the character of the teachers' activities as work. What is the task of the well-paid teachers? To teach the students "something" – and already we are moving towards the trap of the teaching-learning short circuit and viewing learning as a transfer of knowledge and skills from the knowledgeable and skillful to the unknowing and un-skillful.

Yet a more detailed look at learning conditions at schools and universities shows that the fluidity of learning and teaching is certainly still one form of learning today, if not *the* central form. Students asked in which situations they really learn something, emphasis how, through discussions among themselves and with teachers, and reciprocal questions and explanations, they think themselves into a subject-related problem and begin to understand phenomena in

their context and connectedness. Similarly, many teachers point out that they value teaching for precisely the reason that they are constantly learning from and with their students. In fact, one can find specific university learning practices especially designed to facilitate the fluidity of learning and teaching (such as particular seminars, workshops, conferences, etc.). Hence, even if not expressly referred to in these terms, the fluidity of learning and teaching is undoubtedly a real element in today's learning conditions, and it indicates how the subject-matter of learning can gain a new quality of momentum in the reciprocal, cooperative process of learning and teaching. In this sense, the interplay of learning and teaching provides another crucial dimension in overcoming bisected learning.

The objection might be heard here that this all sounds well and good, presented with convincing arguments, yet it remains solely on the abstract level of theory and ideas. The truly decisive factor, such an objection might continue, is reality, educational practice and learning in educational institutions – and there learning is simply structurally bisected. One might then reply, this is indeed the case, but aren't theories and ideas also part of educational reality, and our work on the concept of learning also one aspect of developing educational practice? Moreover, in the present educational conditions, haven't there long been practices to overcome bisected learning? As teachers and education policy decision-makers are increasingly realizing, taking learners seriously also means providing space for their questions about the content of learning. As a result, growing numbers of educational institutions are developing models which hand the act of learning in its entirety to the learners – for example, through problemoriented project learning, successfully used at schools and universities, where the learners independently chose their own learning problem and explore it together with others in groups. Such a model includes a variety of teaching arrangements to support the project work and expand the horizons of the learners (Andersen & Heilesen, 2015a, 2015b; Schraube & Marvakis, 2016). Even if such approaches are still rudimentary, educational practice does not take place in a vacuum, but is related to the social world. In the scientists' declaration Warning to Humanity on the present state of our world, they write: "Time is running out ... soon it will be too late to shift course away from our failing trajectory" (Ripple et al, 2017, p. 1028). The problems confronting society today require the unconstrained development of the human ability to learn, including the independent identification of problems and the ability to deal with them critically, constructively, and cooperatively. One almost might mourn the fact, but it seems not impossible that non-bisected learning is the future.

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