

The Concept of Learning in Waldorf Education

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Since the dawn of Western culture a prime concern of all thinkers – from philosophers to psychologists, education theorists and, most recently, neuroscientists – has been the nature of the process of learning and its significance in human life. The Aristotelian and Platonic interpretations of the process with their slant either towards experience or idea were extended in the direction of Christian eschatology in the Middle Ages. The aim and purpose of learning was to bring about closeness to God and liberation from sin (on the development of the concept of learning, see Meyer-Drawe 2008b). During the Enlightenment the reason-endowed individual stepped into the foreground, and this carried with it the implication of learner-autonomy. Kant's "sapere aude": "have the courage to avail yourself of your own reason" became the new imperative of learning. As a result of this emphasis upon reason (Vernunft) as the goal, the process of learning came to be thought of in strictly rational terms, thus creating the need for a scientific theory of learning. The "Formalstufentheorie" of Johann Friedrich Herbart (1776-1841) and his followers came to set the tone of educational method, in that they formulated strictly defined rules establishing what was acceptable learning and teaching (Geissler, 2007). Through the work of Petrovich Pavlov (1849-1936) and John B. Watson (1878-1958), based on the theory of behaviourism, the science of learning achieved an empirical breakthrough. Their results were mainly arrived at through animal experiments. Behaviourism construes learning as a process of conditioning, arising from strictly defined stimulus-response patterns. A further approach to the theory of learning was provided by cognitive psychology. The main protagonists here are Jean Piaget (1896-1980) and Leo Semionovich Vygotski (1896-1934) Both investigated the structural components of human understanding and, in relation to the phases of psychological development, pursued the question of how understanding is generated. In this connection, Piaget envisaged inherent logical structures, whereas Vygotski explained specific forms of understanding and learning in terms of socio-cultural factors, especially language.

A further approach, that sought to distance itself from the mechanistic stance of behaviourism, was one that was based on a more holistic theory of learning and emphasised human *insight* as a decisive component in it. Worthy of mention here are gestalt psychology, associated with the name of Wolfgang Köhler (1887-1967), and the work of Albert Bandura (*1925), whose concept of learning was focused primarily upon social processes. An important feature of the latter was the concept of *self-motivation*.

Deserving of special mention in the context of pedagogical theories of learning is the approach of Alfred Petzelt (1889-1967) and Lutz Koch (*1942), based upon a philosophical account of the act of knowing. "Petzelt describes learning as a process of interpretation. With him it is strictly distinguished from mere acquisition of information and from the behaviourist notion of a mere change of behaviour." (Meyer-Drawe 2008b, p. 399) This view is favoured, in preference to the psychological-experimental and even to strongly constructivist approaches, by those large numbers of authors who take a decidedly pedagogical approach to learning. In this context, Käte Meyer-Drawe considers, in reference to Maurice Merleau-Ponty (1908-1961),

a phenomenological approach to learning, which draws “particular attention to the productive disturbances and delays involved in learning.” (Meyer-Drawe, 2008b, p. 400f). In a similar vein, Alfred Schirlbauer writes: “A pedagogically significant theory of learning must include the concept of a ‘self directed towards the apprehension of truth’, must speak of being right and being wrong, of comprehension and incomprehension, of getting the point and feeling pointless.” (Schirlbauer, 2008, p. 205) On account of the wide variety of views on the nature of learning, it has so far proved impossible to formulate a consensual definition of it. At the more psychological end of the spectrum of learning theories, the following unified position has been arrived at: Learning is associated with relatively lasting changes of behaviour [...] in relation to specific situations. It rests upon repeated experience in relation to a given situation.” (Winkel, Petermann, Petermann 2006, p. 12) In criticism of this definition, however, pedagogical learning theories would maintain that it implies an attitude which sees only a *behaving* subject, a world of objects conceived in purely static terms, and success as the outcome of a progressive series of steps. (on this point see Breinbauer 2008, p. 59ff) In reply to this view they present a picture of learning as a process always characterised by confusions and autonomously created order. In addition it involves a productive, transformational and dynamic integration of subject and object, which is everything other than a fixed schematic approach to knowledge, whether of natural events or social realities. In this sense, learning itself is always creative.

The variety of ideas about the nature of learning reflects the range of ideas of human nature and/or worldviews from which they arise, and this in turn bears witness to the diverse aspects of learning upon which the scientific gaze is focused. Although there are often sharply opposing arguments in play, it is less a question of *right* and *wrong*, but far rather of *deciding* which concept of learning and, in consequence, which worldview one will embrace. Even though from a pedagogical point of view there is much to find fault with in the one-sidedness of behaviourism, it must nevertheless be said that in certain areas, particularly the forms of learning in infancy and early childhood (fine-motor co-ordination, social learning, cultural imprinting etc.), but also the development of habitual, everyday actions in adults, its descriptive framework is largely accurate. From the perspective of Waldorf education, for instance, it is considered pedagogically unsound to think that success in learning can be generated by means of insights gained through argument (Steiner 1990, p. 29f). It may be true to say that behaviourism *works*. Nevertheless, it would be a mistake to ignore the fact that certain authoritarian and, in some cases, manipulative modes of learning are implicit in it. For instance, the acquirement of fixed stimulus-response patterns is the desired outcome of military training. They are also extremely effective in computer applications, especially computer games. Advertising also makes successful use of a behaviourist model of the human being.

Viewing the human being, rather, as equipped with a sense of freedom and capable of acting out of self-motivation and insight changes things somewhat. Generally this will mean attempting to organise learning in a more open way and to make it more responsive to personal requirements. This gives us a point of departure for the consideration of Waldorf education, which now follows.

Rudolf Steiner on representation

The basis for Waldorf education’s concept of learning is contained in Rudolf Steiner’s theory of knowledge. In his early philosophical works Steiner laid out a fundamental epistemological framework of the human being’s relationship to reality (Steiner 1918 and 1923). Here he expressly distances himself from any kind of naïve realism which takes the things of this world as given and assigns to human cognition merely a mirroring function. He regards reality as the outcome of human cognition as a participatory process. He takes his starting point from a characterisation of human perception, in which he focuses not on the activity of perception as such, but on the perceived object. Through the medium of the neuro-sensory system, this appears at first in isolation, unconnected to anything else. Context is then supplied by thinking in the form of concepts by which the isolated percepts are structurally integrated. Through being permeated with appropriate concepts in this way, that which was concealed in the process of mere perception comes to expression and the percepts are accordingly adapted to their particular properties. The concept “bitter”, used to identify a particular taste percept, brings to expression the latter’s inherent quality. Of course, this action

of concepts upon percepts can often lead to error. This is a result of the cognising subject overlaying the as yet unexpressed qualities of the percept with his conceptual contents in too dominant a way. It can also happen that the percept is too fragmentary to be susceptible to the action of a concept. For instance, if you're driving along a country road on a bright summer's day, the shimmering heat-haze up ahead is likely to be mistaken at first for a "puddle". Because experience (i.e. previous applications of concepts) teaches that water acts as a mirror, this conceptual interpretation is at first justified. To validate this, however, further perception and conceptual interpretation would need to be brought to bear upon fountains of spray as the car drove through the water. Failing this, there is a distinct lack of a perceptual basis upon which to sustain the applied concept "puddle". The error, however, is not directly attributable to either concept or percept. It lies in the premature and inexact combining of the two elements.¹

Steiner's epistemological conception of reality as the active combining of percept and concept is closely related to constructivism. However, there is a fundamental distinction between the two, in that Steiner – as already described – construes the entry of the conceptual into the sphere of the perceptual not as subjective construction, but as objective adaptation. Furthermore, Steiner understands the nature of the concept entirely from a realist perspective. Accordingly, he regards the concepts brought forth by thinking not simply as products of human subjectivity, but as ontologically based entities, which, within the limited scope of any given thought process, appear in a necessarily partial way, but nonetheless on the basis of their own inherent lawfulness. This inherent lawfulness of the conceptual, which can be designated as logicity, is exemplified very well by mathematics.

The term given by Steiner to the union of percept and concept is representation. Normally we are not conscious of the autonomous process by which it is generated, and this is the source of naïve realism. In contrast to the elements that go to its making, the representation can be remembered, which is of considerable significance for learning processes, placing strong emphasis on memory. Over and above this, learning within the context of Steiner's theory of knowledge extends in two directions, which can be designated as *generalisation* and *individualisation*. By individualisation is meant the appropriate integration of general concepts into specific percepts (since their generality is restricted in its expression to an individualised form), and by generalisation is meant the active bringing to expression and cognitive apprehension of conceptual contexts with their own inherent lawfulness (since the individual thought-act is integrated into the general thought-context). These two forms of learning are mutually dependent, for the permeation of a percept by a concept (individualisation) presupposes the latter's creative generation in thinking (generalisation). And conversely, the constantly wakeful activity of thinking is energised by the enigmatic nature of perception. In what follows, this relationship will be considered in more detail in connection with an interpretation of Steiner's theory of knowledge.

Disposition and Condition

The philosopher Herbert Witzmann (1905-85) wrote extensively upon the theory of knowledge, developing his views on the basis of the philosophical works of Rudolf Steiner.¹ In his book, "Der Urgedanke" (Witzmann 1988), he begins with perception, characterising it as follows: "In the unsurpassably elaborate invention of such a thing as the human neuro-sensory system the creation returns itself to its original form. For the pure sensations, which our senses deliver to us, represent the unordered, material content of our own inner processes, in which we, to the extent that we master the task of ordering them by means of our thinking, create out of the uncreated world, creating it anew. In this engendering of reality we are the self-generators of our individual mode of being." (Witzmann, *Der Urgedanke* 1988, p.10) Perception is presented as an epistemological null-point. The operation of the human neuro-sensory system deconstructs the ontological context of the given world. Only in this way is the scope made available for new creation on the part of human cognition. The context-creating function of thinking in the bringing to expression of percepts is described by Witzmann as the "individualisation of general concepts (universals) in the course

1. In addition to what is set out here and to the works of Rudolf Steiner already cited, see in this connection especially: Herbert Witzmann 1985, 1987, 1988, 1992.

of their metamorphic adaptation to conditions presenting themselves in the form of perceptions with which they interpenetrate.” (Witzenmann 1988, p.11) *Individualisation* of this kind, once achieved, leads to the ability to repeat it, and, through repetition, to optimise it. Upon this rests the ability to recognise forms, objects and events in the surrounding world, and to find an appropriate intentional response to them. This increase in abilities through encountering the world is designated by Witzenmann as *disposition*.

Then, of course, there is the other side of the learning process, which has to do with the generation of concepts by human thinking, and which is designated by Witzenmann as *condition*. Referring back to disposition, he describes this as follows: “Our dispositional freedom arises through our participation in the individualisation of Mind in the process of which it is permeated with percepts. It is a ‘*materialisation*’, a self-forming in the co-forming of thought-*contents*. Our conditional freedom arises through our individual (i.e. conditioned) thought forms working upon the universal Mind in such a way that it receives their influence into its own realm. This freedom is thus a ‘*mentalisation*’. A mentalisation that occurs through Mind retrospectively determining thought-*acts*, thus achieving its own self-realisation by its action *within* (though not *upon*) them.” (Witzenmann 1988, p. 13) The concept of Mind, as used here, might be confusing. What it means is nothing other than the autonomous ontological reality of concepts, as previously mentioned. Human thought-acts occur in relation to them and are received into them. (These are both the substance and the expression of human thought acts.) Conscious experience of this can be designated as the capacity for insight. For instance, when one reads a complex text or tries to master a mathematical equation, whatever insight is gained in the process will be experienced as a palpable expansion of consciousness within the given context. Worthy of note is the fact that here also repetition increases the capacity for insight.

Representation and Will

What has been presented so far puts us in a position to clarify a key element of what Rudolf Steiner had in mind in founding Waldorf education. In lecture after lecture, given to the college of the first Waldorf school in Stuttgart in 1919 and in subsequent years, he emphatically points out that Waldorf education, contrary to the school system of his time, is not about “head-learning” but about “limb-learning” (Steiner 1980). The import of these expressions is clear: the aim is not the one-sided inculcation of facts and ideas, but the education of the will. Steiner thus strongly rejected what he saw as the “cerebralised” education of his day. In this he was saying something essentially similar to other contemporary educational reformers. School, according to Steiner, does not exist solely to instruct the “head”. Its purpose is not to cram as large a volume of facts (in the form of mental representations) into the pupils’ heads as possible. He criticises the one-sided emphasis upon accumulating such representations and storing them in the memory for the purposes of examinations. The problem lies not in the representations as such - they, of course, have their place in Waldorf education, and need to be learned and retained. It lies rather in the fact that representations give no hint to consciousness of their cognitive origins, namely, the mind’s own activity in productively combining percept and concept. Epistemologically speaking, they suppress our participation in the construction of reality, thus casting our conscious experience in the mould of subject-object dualism. Consciousness in representation-mode construes the world as something opposite to its own being - an entity set apart in principle. If school lessons are conducted in such a way that emphasis is placed solely upon the reception and reproduction from memory of contents that have the character of representations, this will have the effect of reinforcing in experience the separation of mind and world. Only insofar as teaching style is not restricted to conveying contents of this kind alone, but takes account of the individual mind’s active contribution to the formation of representations and makes practical, didactic use of it, will the mind’s participation in the construction of reality enter into experience. This leads to an essentially monistic form of awareness, which experiences itself as not separated from the phenomena, but involved, both epistemologically and functionally, in the genesis of reality, and which provides the basis for the development of an individual’s abilities. Steiner repeatedly stressed that educating the “will” was paramount. In the present context “will” refers to this active contribution made by the human organism to the coming into being of representations. It is the dispositional and conditional abilities which are formed in this active constituting of reality. In this sense, then, the aim of learning in Waldorf education is the formation of dispositions and conditions. We will now consider this more closely on the basis of a practical example.

Case Study: agricultural practical

For their agricultural practical, thirty five students are spending two weeks at an organic farm in northern Germany. This is a class nine, with almost equal numbers of boys and girls, from a Waldorf School in the Ruhrgebiet². The farm is responsible for providing these young people with accommodation, meals and educational instruction. There are separate dormitories for boys and girls, with single rooms for the teachers accompanying them. Every day there are tasks to be done, in the following areas: work with animals (pigs and cows), the cheese dairy, vegetable garden and orchard, field work and forestry. In groups of five the students work in each of these areas in turn. In addition there are daily mini-lessons on various aspects of farming and forestry. For the first three to five days the students make very heavy weather of this new situation. Removed from their familiar surroundings, tied to a demanding, though not overly strenuous, work process, they feel it is all too much. Getting up early (6.30 am.), which is actually not much different from a normal school day, proves very laborious. Since many parents have kitted their children out with a large supply of sweets and snacks, the healthy and nourishing meals provided by the farm are at first left largely uneaten. Tasks that are simple, but require some staying power - like digging a vegetable bed - lead many students, after a very short time, to imagine they are exhausted. The working atmosphere at this early stage of the practical is thus rather strained. Then something happens: While everyone is eating lunch on the fourth day one of the girls comes running excitedly into the canteen with the news that one of the farm horses has broken out of its paddock. With one accord the pupils are on their feet, all set to go and catch the horse. They find it grazing in a meadow not too far from the paddock. As the students, all bunched together, approach it, it takes to its heels, stops about twenty to thirty metres further on and resumes grazing. The pursuers never succeed in getting any closer than the horse's preferred distance of about twenty metres. Every time they try to close in, the horse keeps its distance. They spend the next three quarters of an hour in heated discussions over how to solve the problem. By then the horse has reached a copse, in which there is a little glade rounded off at one end. The group agrees upon a plan of action: they will surround the horse on both sides, without infringing upon his space, and then close in from behind. While doing this they even manage to refrain from speaking or making any sudden movements, and in this way, within half an hour, have succeeded in returning the horse to its paddock.

The adult observers soon realise that this episode has broken the spell of the first few days: the work has become less arduous, the students draw lots to see who will get up at five in the morning instead of 6.30 to be in the byre early enough to help with milking, and last but not least the ample helpings of food now go into hungry young bellies instead of back to the kitchen uneaten. When the fourteen days are up and it is time to leave, there are tearful farewells with the family who run the farm and with animals that have become favourites. It also comes about that a small group of students voluntarily returns to help on the farm in the following summer holidays.

What was learned?

Having thus described this case study of a learning process, the question is: what did the students learn? They became actively engaged in the farm as a whole. As an organism it sets certain tasks that have to be done, and the students made them their own. In doing so, they learnt something about the origin of foodstuffs, about the processes they have to be put through, about working with animals and plants, and about human nutrition in general. In other words they learnt something about a particular aspect of the world and how it works. Moreover, they discovered their ability to mobilise their own capacity for effort and developed a strong motivation for work. Through having been placed in a position of caring for the natural world and especially for the animals they have gone some way towards developing an ethic of respect for nature, reflected in a newly won ability for appropriate action. Not least, the class community greatly benefitted from an improved level of mutual respect and considerateness.

2. Translator's note: This is an industrial area of N.W. Germany built around the River Ruhr and comprised of cities such as Dortmund, Essen and Bochum.

All in all, then, the learning that took place here encompassed skills in a wide range of areas: emotional (sympathetic engagement with the farm), motivational and volitional (readiness to work, perseverance), cognitive (agricultural knowledge), ethical-moral (respect for nature) and social (class community).

A key factor in all this was the episode of the runaway horse. It was a learning opportunity built into the structure of the practical as a whole, but even so it cannot be said to be the actual reason for the success of the learning process. What it did was to create a major turning point. It was a real-life situation. The learning did not take place in a classroom under “artificial” conditions set up by a teacher, but in the context of an actual working farm. All the work processes the students went through were at the same time those of the farm itself. This is, of course, an exception to the normal school day, but it illustrates a key element of what learning, in Waldorf terms, is really about; namely, experience of the world which is directly relevant to practical life. This aspect of learning will now be considered in relation to meaning and truth.

Truth

Every learning process is accompanied by a certain question, which may or may not be verbalised: “Why do I have to learn this?” And no student will be satisfied with the answer: “Because you’ll need it later in life”. Learning must be meaningful in itself. For instance, the acquisition in early childhood of practical and motor skills (grasping, walking, speech etc.) represents an immediate experience of success in learning. The newly learned abilities are geared to the purposes of satisfying various needs. This is meaningful. As the child then passes through school the immediate experience of meaning will tend to recede into the background as the level of abstraction in lesson content increases. This calls for a teaching methodology centred upon the *creation of meaning*. By drawing upon content in tune with developmental phases, real life and human nature, such teaching would integrate meaning – in the form of relevance – into the educational landscape as a whole. The point is to establish a relevant connection to the world, against which the correctness of the things one has learned and acquired can be gauged. The world is the yardstick upon which educational success is to be measured. Käte Meyer-Drawe grants the establishing of a concrete connection to the world a very important place in the process of learning, designating it as the promotion of “phenomenal rights” (Meyer-Drawe 2008a). And here Alfred Schirlbauer quite rightly calls for truth- and/or accuracy-based learning: “With no relation to ‘truth’ and ‘accuracy’ it would make little or no sense to speak of insight, understanding or knowledge.” (Schirlbauer 2008, p. 205) Here, of course, truth is not intended in any ultimate philosophical sense. Rather it is being used in its more pragmatic meaning of everyday logic, which appears as the working knowledge that proves itself in every successfully performed action, and as the general understanding that lives in the particularity of whatever content learning is focused on. In connection with the previously mentioned faculties of disposition and condition, truth implies the object-relational attachment of acquired concepts to percepts (individualisation, which leads to dispositions), and to other concepts (generalisation, which leads to conditions). Schirlbauer, in reference to Theodor Ballauf (Ballauf 1970), writes that “thinking cannot be willed, rather it must assimilate us; we are taken hold of by a train of thought when ‘we think’.” (Schirlbauer 2008, p. 207) Effectively he is pointing out here that our experience of how insight arises provides evidence of the autonomy of thinking. The learning subject experiences the objective attachment of certain faculties to the inherent requirements of an object, in this case of a thought. In this position, however, the subject is not overpowered or placed under compulsion; rather insights, whether implicit or explicit, act as a catalyst for the development of the subject’s abilities. An insight does not entail any kind of compulsion, since it is also the product of the activity of a subject. (cf. Witzmann 1992) It would be absurd to maintain that we are forced to open the door before leaving a room because we know it is a good idea. The subject determines his or her own actions on the basis of acquired insights, which exist in the form of individually validated truths. Upon such a background the currently oft-quoted formula of *learning to learn* is simply redundant. Learning, after all, is not an end in itself, it is always directed towards something. That is the main test of its occurrence. Schirlbauer makes a strong distinction between such an object- or content-oriented concept of learning and a mere training in various methods: “Learning and teaching theory must be about the contents being learnt and taught, because without them there can be no learning, because [...] the ‘contents’ are the thoughts we learn to think in the process of learning.”

(Schirlbauer 2008, p. 205) For their part, the thoughts stand in relation to a *something*, “which provides the sole basis for any talk of the correctness, appropriateness, or ultimately of the truth of a judgement.” (Schirlbauer 2008, p. 205) Describing things thus in terms of concrete object-relations (where “object” can be understood as “world”) expands the concept of learning as “content-oriented”. It is not geared towards the past, as in the model that sees learning as the acquiring of a canon of knowledge set down in a curriculum. Rather, very much in the style of the previously described case-study, it points to a more holistic form of learning, which encompasses implicit areas of “knowledge”.

In this sense to learn is to participate in the workings of the world as mirrored by acquired dispositional and conditional abilities. Waldorf education puts this understanding of learning into practice, in that it has a decided preference for experiential and practical learning processes. Projects involving arts, crafts and industrial skills are systematically integrated into the school day. Even the more abstract, cognitive subjects, such as mathematics, are taught in as imaginative and practical a way as possible.

Remembering

There is a further aspect to be considered: the process of learning cannot succeed, unless that which has been learnt persists in time and does not simply dissipate. It must be preserved. Here Rudolf Steiner speaks of “treasures of the past” (Steiner 1922, p. 52). Whatever else it might be, learning is always a process of perpetuation. That which has been acquired by learning becomes a lasting component of the human personality. For this to happen the memory must be activated. Rudolf Steiner describes the faculty of memory as the fundamental attribute of the human soul. Within this context the word soul is functionally defined as the *preserver of the past*.

How, then, according to Steiner, does memory work? On this question there is an illuminating passage in his book “Theosophy”. Here having begun by pointing out the transitory nature of sensations, he then goes more closely into the process of memory: “The body would allow all impressions to sink back again into nothing were it not that whilst the present image is being formed through the act of perception, something is also taking place in the relationship between the outer world and the soul, as a result of which the man is able, subsequently, to form, through his own inner processes, a fresh image of that which he received in the first place as an image from outside himself.” (Steiner 1922) This is a rather complex formulation, especially where it is stated that *something also took place between the outer world and the soul* through which representations are formed in the present. What does this mean? Steiner points to the process by which representations are formed. As previously described, he regards them as produced by the union between sensory perceptions and concepts generated by thinking. He decisively rejects naïve realism - the notion that external phenomena are perceived and then laid down in consciousness as representations.

The human being is not simply a receptive vessel for the world, but is highly active and productive in relation to it. It is not that images of a ready-made reality are simply taken in, rather human consciousness is actively involved in the construction of reality. However, as previously mentioned, in our experience of representations we are not conscious of the participatory process that went into their formation. For waking consciousness the (already formed) representation is the starting point. Since this is an end-product of the process whereby reality is constructed, and is thus already distinct from it, Witzenmann emphatically states: “Our normal consciousness is thus a representational consciousness, containing little in the way of actual reality” (Witzenmann 1985, p.61). He distinguishes between a fundamental structure³ of human cognition actively involved in the construction of reality, and a secondary structure, which expresses this constructive process in the form of representational memory images. In Steiner’s terms this fundamental structure is the unifying of percept and concept. This is the process that *takes place between the outer world and the soul*, and makes it possible for the human being to “form, through his own inner processes, a fresh

3. Translator’s note: The word in German is “Grundstruktur”, and it is evident from the context that this fundamental structure is to be construed as a *mental activity*. Although in English the word “structure” is normally understood as the result rather than the cause of activity, I have left the phrase as it is. It is perhaps worth pointing out that there are English terms for this fundamental structure: Susanne Langer calls it *formulation*, Henri Bortoft calls it *cognitive perception*, and Owen Barfield calls it *figuration*.

image of that which he received in the first place as an image from outside himself.” (Steiner 1922) These processes, which are experienced *inwardly*, Steiner designates as memory. He defines his position as follows: “Anyone who has acquired practice in observing the life of the soul will be able to realise how erroneous it is to say that a man has a perception today, and tomorrow, through memory, the same perception appears again, having meanwhile remained somewhere or other within him. No; the perception which I *now* have is a phenomenon which passes away with the ‘now’. When recollection takes place, a process occurs in me which is a result of something that happened, *in addition* to the calling forth of the actual present image, in the relation between the external world and me. The image called forth through remembrance is a new one, and not the old one preserved. Recollection consists in the fact that one can make a fresh mental image to oneself, and not that a former image can revive. What appears again in recollection is something different from the original image itself.” (Steiner 1922, p. 50) According to this, it is not the previously formed representation that appears again, but a *newly* formed one. This occurs in relation to “something that happened, *in addition* to the calling forth of the actual present image, in the relation between the external world and me.” (ibid.) But this “something” is none other than the original participatory joining of percept and concept just now termed fundamental structure. This amounts to the formulation, on Steiner’s part, of a new concept of recollection: recollection is not only concerned with established representations, but in recalling something to memory the participatory element in the previous formation of the concept enters into consciousness. This creates what could be called the *magic* of recollection – the fact that to recollect is to overcome passive, dualistic spectator consciousness, for in doing so we become aware of the participatory activity that went into the previous making of the recollected representation, and at the same time of the self as an entity capable of developing dispositional abilities in relation to reality. In various contexts Rudolf Steiner has referred to this as *recollection of spirit*: in recollecting, the human being implicitly recollects the fact that he is a spiritual being, productively involved – in that to be so is part of his own self-realisation - in the formation of reality. At the same time this gives us the essence of Steiner’s concept of spirit: spirit is not a world of beings existing in the beyond, but the inner being of man actively expressed within reality.

An inkling of this *magic* of recollection can be had, for instance, from visiting, after long absence, some childhood haunt and being moved by the smallest impressions – a scent or a particular quality of light. It becomes apparent that one is not only registering the impression of the moment, but at the same time recollecting one’s past involvement in its making, in other words, one’s own *being*.

Forgetting

Cognition and memory, as portrayed by Rudolf Steiner, are highly active processes. This has direct consequences for the learning process. In Waldorf education learning is understood as the active exploration of reality. It cannot be efficient unless the human subject is as involved in the process as possible. Learning, therefore, is no mere pouring of material into a passive, receptive vessel (as in the so-called “Nürnberg funnel” method), but an active, personal and emotional process. In learning, the human personality attains its own particular configuration, since in the process it moulds itself according to its own sense of reality. From the point of view of Waldorf methodology, therefore, it is inadvisable to make pre-determined facts, images or ideas the object of learning. While these can be useful in providing direction and structure, the crucial thing for the process of learning is to implement awareness of the learner’s participation in the construction of reality. This is done through ensuring that what happens in the classroom involves direct experience and practical action. Steiner emphasises, moreover, that it is essential for the Waldorf teacher to use “pictures” and “flexible concepts” in his or her teaching. This amounts to another way of pointing out the inadvisability of using fixed content.

There is, however, something else to be considered – the aspect of *forgetting*. In the theory of learning one of Rudolf Steiner’s most noteworthy achievements is his elucidation of the significance of *forgetting* in the learning process. Of course, strictly speaking what is meant here is *deliberate* forgetting; for *incidental* forgetting is directly associated with forgetting one’s participation in the construction of reality. *Deliberate* forgetting, on the other hand, functions such that the normal tendency for the conscious mind to be

dominated by acquired representations is more or less systematically superseded. This is practised in Waldorf education by keeping representations more “open”, by pictorial teaching and the use of flexible concepts. Lessons are structured in such a way that typically they will end with a directly relevant experiential moment of some kind (in the form of a story), or better still with an open question. In conventional Waldorf parlance this is referred to as taking something “into the night”. On subsequent days the theme will be taken up, and gone into in more depth. Organising teaching in so-called “main lesson blocks”, in which a particular subject will be taught for the first two hours every morning for three or four weeks, is a form highly suited to deepening the material from day to day and integrating sleep into the process.

This approach to learning, developed by Rudolf Steiner more than ninety years ago, is now being empirically investigated by brain scientists. Chiefly American research has shown that lesson contents are anchored better in the memory just before the sleep phase. (Karni et al. 1994, Wilson and McNaughton 1994, Plihal 1997) In this a distinction is made between the so-called *declarative* memory, mostly responsible for storing items of knowledge, and the *non-declarative* or *procedural* memory, responsible for skills and actions. The findings of Wilson and McNaughton (1994), and Karni (1994) indicate that so-called REM sleep is associated with non-declarative knowledge processing, and deep sleep with declarative.

In addition to the importance of the night for learning, which is thereby consolidated and secured, the principle of the main-lesson form also entails that a given subject, after being intensely focused upon for three or four weeks, is then left to rest for a while. This does not mean that the contents of the lesson are forgotten, but it does imply that the mind’s grip upon them is loosened. When the same subject then appears on the timetable three to six months later, the representations will have lost their formerly sharp contours, and the students are now required, in the sense of the Steiner passage quoted earlier, to make *new* ones. In so doing they have the opportunity to re-experience their connection to the subject as a part of their own biography.

Transformation

A further, previously mentioned, dimension of learning implicit in all this is *transformation*. The case of the agricultural field trip described earlier demonstrated that the first days on the farm had very much the character of a *crisis*. Learning always involves effort, it must of necessity lead to a crisis. Even good teachers cannot spare their students the effort of learning. Good teaching does not mean that everything comes easily to the students and no crises arise. It means, rather, good *crisis management*, which involves teaching them how to cope with the struggles and crises of learning. Errors and mistakes thus become important and necessary wake-up calls, which sharpen alertness to what is “correct”. (cf. Benner 2005) If a learner cannot become aware of what he is doing wrong, then he can never develop a sense for what is correct. A pedagogical approach that seeks to deal with this by penalising errors (for instance, by giving bad marks) will be counter-productive. The crises intrinsic to learning lead to the learner’s changing his accustomed view of the content. The fixed structure of representations is breached. A transformation takes place. The subject transforms him- or herself in relation to the conditions of the object. That is the one aspect of the process. The other is that transformation also happens in the opposite direction – from object to subject. In every successful learning process the objects transform themselves in the dispositional and conditional capacities of the subject. The French painter, Paul Cézanne, used the phrase “sur le motif” to describe this reciprocal transformation of subject and object, and visualised it as the image of clasped hands. If this occurs, learning becomes a highly satisfying experience, because the human personality has become identified with its own abilities in a certain area of knowledge.

Mother Holle

The well-known Grimms’ fairy tale, “Mother Holle”, contains many images directly relating to the learning process as described here, and will now be interpreted in this connection (on this see Witzenmann 1993). The story is about a woman who has two daughters, one “ugly and lazy” who never lifts a finger – she does not engage with reality in any way; and one “beautiful and hard-working” who goes to the well every day and sits

there spinning. She does engage with reality, in that by dispositional means she *spins* her concepts into her percepts, and her thinking by conditional means into the cognitive context. She does this with such energy that she makes her hands bleed. In other words, she pours her own self into the process of reality, and this takes effort. Mere spectator consciousness does not get its hands bloody. Then this girl loses her spindle in the well. This is something of a crisis. It is crucial for the learning process, for it goes beyond the subject's limits (the known, the cognitively secure). Active thinking loses itself in the phenomena, and a will element, which does not have the same degree of wakefulness as representational consciousness, comes to the fore. The latter is being transcended. The human being loses himself in the phenomena. In the case-study this was the moment when the students jumped up from the lunch table to go and catch the horse. In the story, jumping into the well brings the girl to a new world: the subject is not forming representations of phenomena, rather the phenomena begin to express themselves in the subject. In the language of fairy tale imagery, the loaves say that they want to be taken out of the oven, and the apple tree that it wants to be shaken. The girl does all this and willingly becomes the servant of Mother Holle, who with her long teeth represents the wisdom and order of the world⁴, with which the girl, on account of her own active will, is able to engage. When she leaves the world of Mother Holle, she returns showered with gold. These are the "treasures of the past" – everything she has learned through actively engaging in reality. She has been equipped with the gold of her acquired abilities.

The other girl, who is lazy and ugly, would also like to have some gold. But she cannot let go of her fixed ideas. She pricks her finger on a thorny hedge to make it bleed. This can be taken as an image of a more mechanical kind of learning. Instead of drawing blood on the spindle of one's own thinking and feeling the pain of it, one does so on a thorny hedge of unwieldy, ready-made contents. The girl then jumps into the well, but cannot let go her fixed ideas and has no way of engaging actively with reality. She leaves Mother Holle's kingdom covered in pitch. This brings into relief the problem of a form of education that piles on information, but does little for the development of genuine abilities.

Summary

The main points of this article are as follows:

- *Transformation*: learning involves a *crisis-laden* relinquishing of fixed ideas and an active engagement with reality. This amounts to a mutual integration of self and world. Piaget called this *équilibration* (Piaget 1976).
- *Forgetting*: To learn, one needs to forget; this means that the strong attachment to certain representations must be loosened. *Sleep* is a component of the learning process.
- *Abilities*: The rich reward of learning is the benefit to the self in the growth of one's own abilities. Dispositional and conditional abilities are developed.
- *Comprehensiveness*: Learning occurs through interaction with reality; this interaction should be as comprehensive (holistic), active and – above all – experiential as possible. It is not just an accumulation of factual knowledge.
- *Truth*: In learning the human being engages with the world and its order, the laws of which then express themselves in the abilities thus acquired.
- *Meaning*: This ability-based engagement with the world is what creates the experience of meaning through learning and gives it its intrinsic relevance.

4. In his interpretation of this tale Eugen Drewermann calls her "Mother Earth" (Drewermann 2002).

References

- Ballauff, T. (1970). *Systematische Pädagogik. Eine Grundlegung*. Heidelberg: Quelle und Meyer.
- Benner, D. (1995). Über pädagogisch relevante und erziehungswissenschaftlich fruchtbare Aspekte der Negativität menschlicher Erfahrung. *Zeitschrift für Pädagogik*. 49. Beiheft. p.7-21, Weinheim, Basel.
- Breinbauer, I. M. (2008). Nachhaltiges Lernen. In: *Dem Lernen auf der Spur*. (Eds.: K. Mitgutsch, E. Sattler, K. Westphal & I. M. Breinbauer). Stuttgart: Klett-Cotta.
- Drewermann, (2002). *Lieb Schwesterlein, lass mich herein. Grimms Märchen tiefenpsychologisch gedeutet*. München: dtv.
- Geissler, E. (2007). J. F. Herbarts ideengeschichtlicher Beitrag zu einer wissenschaftlichen Unterrichts- und Erziehungslehre. In: *Horizonte. Neue Wege in Lehrerbildung und Schule*. (Eds.: D. Flaggmeyer & I. Mortag). Leipzig: Leipziger Universitätsverlag.
- Goethe, J. W. (1975). Der Versuch als Vermittler zwischen Objekt und Subjekt. In: *Goethes Werke. Bd. 13*, (Ed.: E. Trunz). München: C.H. Beck.
- Karni, A., Tanne, D., Rubenstein, B.S., Askenasy, J.J.M., Sagi, D. (1994). Dependence on REM sleep of overnight improvement of a perceptual skill. *Science*, 265, p. 679-681.
- Meyer-Drawe, K. (2008a). *Diskurse des Lernens*. München: Wilhelm Fink.
- Meyer-Drawe, K (2008b): Lernen als pädagogischer Grundbegriff. In: *Handbuch der Erziehungswissenschaft*. (Eds. G. Mertens, U. Frost, W. Böhm & V. Ladenthin). Bd. 1, p.391-402. Paderborn, München, Wien, Zürich: Ferdinand Schöningh.
- Plihal, W. & Born, J. (1997). Effects of early and late nocturnal sleep on declarative and procedural memory. *Journal of Cognitive Neuroscience*, 9, p.534-547.
- Piaget, J. (1976). *Die Äquilibration der kognitiven Strukturen*. Stuttgart: Klett.
- Schieren, J. (1998). *Anschauende Urteilskraft. Methodische und philosophische Grundlagen von Goethes naturwissenschaftlichem Erkennen*. Düsseldorf, Bonn: Parerga.
- Schirlbauer, A. (2008). 37 Elefanten. Oder: Kann man ohne Lerntheorie unterrichten? In: *Dem Lernen auf der Spur*. (Eds.: K. Mitgutsch, E. Sattler, K. Westphal & I. M. Breinbauer). Stuttgart: Klett-Cotta.
- Steiner, R. (1918). *Die Philosophie der Freiheit*. Berlin: Philosophisch-Anthroposophischer Verlag.
- Steiner, R. (1922). *Theosophie*. Dornach: Philosophisch-Anthroposophischer Verlag am Goetheanum.
- Steiner, R. (1923). *Grundlinien einer Erkenntnistheorie der Goetheschen Weltanschauung*. Dresden: Verlag Emil Weises Buchhandlung.
- Steiner, R. (1980). *Allgemeine Menschenkunde als Grundlage der Pädagogik*. Dornach: Rudolf Steiner Verlag.
- Steiner, R. (1990). *Die Erziehung des Kindes vom Gesichtspunkte der Geisteswissenschaft*. Dornach: Rudolf Steiner Verlag.
- Wilson, M.A. & McNaughton, B.L. (1994). *Reactivation of hippocampal ensemble memories during sleep episodes*. *Science*, 265, p. 676-679.
- Winkel, S., Petermann, F. & Petermann, U. (2006). *Lernpsychologie*. Paderborn: UTB
- Witzenmann, H. (1985). *Strukturphänomenologie. Vorbewusstes Gestaltbilden im erkennenden Wirklichkeitenthüllen*. Dornach: Gideon Spicker Verlag.
- Witzenmann, H. (1987). *Goethes universalästhetischer Impuls*. Dornach: Gideon Spicker Verlag.
- Witzenmann, H. (1988). *Der Urgedanke. Rudolf Steiners Zivilisationsprinzip und die Aufgabe der Anthroposophischen Gesellschaft*. Dornach: Gideon Spicker Verlag.

Witzenmann, H. (1992). *Intuition und Beobachtung*. Bd. I und II. Stuttgart: Verlag Freies Geistesleben.

Witzenmann, H. (1993). Frau Holle. Ein Weg zum Verständnis der Werke Rudolf Steiners.

In: Ders., *Das Rebenschiff. Sinnfindung im Kulturniedergang*. p. 145-165, Dornach: Gideon Spicker Verlag.