Education and the Presence of the Unknown

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This article was originally published in In Context *(#28, Fall 2012). It grew out of a talk, "What Is Education For?" that the author gave at the fourth International Refresher Week in March 2012 at the Kassel Teacher Training College in Germany. This course was attended primarily by teachers, as well as those training to become teachers, in Waldorf high schools. Participants from over 20 different countries were in attendance.*

Most parents are deeply concerned about the education of their children. They want their children to become capable individuals who live satisfied lives and who are productive in their chosen professions. They feel that school education should facilitate this development: it should give students the knowledge and skills to master life and to find and thrive in a good job.

Nevertheless, parental thinking about "what is education for?" tends to shrink into the short term. Are you preparing my teenager for college? This direction of thought often manifests itself when the students are in seventh or eighth grade and leads the parents in Waldorf schools to wonder whether they should send their students to a different high school, which they sometimes do.

In such a frame of mind, thinking about education becomes narrow. Each stage of the educational process becomes the preparation for the next: kindergarten prepares for first grade, which prepares for the elementary school years, which prepares for high school, which prepares for college, which prepares for a profession. When curricula are developed out of this perspective, the tendency is to bring what is perceived as needed at a later stage into an earlier one. A public school teacher in the U.S. may now receive training to teach her students how to use PowerPoint in the second grade! Why? Well, they will need to accompany their school reports during the upper elementary grades with a PowerPoint presentation, so they need to be prepared. And why should they use PowerPoint during the latter years of elementary school? They need it for high school. …

Or, in public high schools there are advanced placement courses so that the students are better prepared for college and can even skip some college courses. In reality, it is often the case that students nonetheless learn the same subject matter again in college courses. Or even worse, as a university chemistry professor once told me: I need to help students who have taken advanced placement courses unlearn what they think they know so that they can actually learn to think like chemists!

U.S. President Barack Obama's education webpage offers a clear message about the goals of education:

> A world-class education is the single most important factor in determining not just whether our kids can compete for the best jobs, but whether America can out-compete countries around the world. America's business leaders understand that when it comes to education, we need to up our game. …The President will reform America's public schools to deliver a 21st century education that will prepare all children for success in the new global workplace. President Obama's [plan] fosters critical thinking, problem solving, and the innovative use of knowledge to prepare students for college and career,

> helping America win the future by out-educating our competitors. (http://www.whitehouse.gov/issues/education; downloaded May 3, 2012)

Here the goals of education are framed solely in terms of economic success and national interests: students must serve the economic engine that drives the U.S. in its efforts to out-compete the rest of the world. This is a crass perspective, but it also indicates a trend in our times, when educational policies focus increasingly on specific outcomes.

When education is mainly viewed as preparation for a next stage of education, for a particular professional outcome, or for furthering national interests, then the student is to be molded to fit a particular system. We make the future—as the goal to be reached—into something specific and bounded that we can have a grip on. I will call this the abstract future.

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The Unknown Future

But the abstract future is not the real future. The future is something unknown, it is full of surprises. If you reflect on some of the most important events in your life—ones that evoked growth and development, that allowed something new to happen—they were probably not events that school explicitly prepared you for. Were you taught how to find your life's partner in school or prepared for that moment when your first child is born and your life radically changes? Even if someone had told you about the transforming effects of such an event, the actual experience is something wholly other than hearing about it.

Or think of cultural change. Who would have imagined fifty years ago that the book of an unassuming scientist would help ignite a new kind of environmental awareness? I am referring to Rachel Carson and her book *Silent Spring*. Which educational institutions in the late 1950s and early 1960s were preparing students to be receptive to what Rachel Carson presented? The reception of her book was a surprise, unexpected and exceedingly important.

The future is not an extension of the past; new things do happen. If we are educators (and I include here parents as educators) who are thinking mainly about preparing students for later life viewed as an extension of the status quo, then we are ignoring some of the most vital aspects of human life.

Moreover, who could possibly want the future to be a continuation of the present? Who wants environmental degradation, poverty, or war to continue?

In other words, as educators we are faced with a conundrum. It is fairly straightforward, at least superficially, to help prepare students for an exam, to teach them content they might need to know. They can learn to perform a sequence of actions to make something, or become reasonably skilled in a particular discipline (auto mechanics, an academic field with its particular forms and methods, disease diagnosis, and so on). We know that this kind of preparation has its place.

But what about preparing for an unknown future, for the future we cannot imagine? How might we craft educational programs that help students develop capacities for creating a future we can't see? That is hardly easy, and may even seem impossible. However, it's what I want to focus on here.

A few years ago I gave a talk at a high school graduation ceremony in a Waldorf school. In considering what I would say in this

brief talk, I knew that I didn't want to say, "I hope the school has prepared you well for college or for life." Since you have just read what I wrote, you know why. In one moment it came to me: no, the goal is different. I need to say: "My hope is not that the school has prepared you for present-day culture and its existing forms and processes. Rather, my hope is that you have been educated in such a way that the world is not prepared for you. I hope you have not been hindered and that you may even have been nurtured and encouraged to develop ideas and to do things that no one expects—not in order to be different, but because you sense what needs to happen." I added, "Don't listen to people who tell you, when you are following a yearning or birthing an idea, that 'it can't be done.' "

How might we craft educational programs that help students develop capacities for creating a future we can't yet see?

In a similar vein Rudolf Steiner wrote about the goals of education in an essay published shortly before the founding of the first Waldorf school in 1919:

> What we teach and how we educate should be derived only from our knowledge of the becoming human being and his or her individual potentials. A true science of the human being should be the basis of education and instruction. We shouldn't ask: What does a human being need to know and to master for society as it exists? Rather: What are a human being's predispositions and potentials for development? Then it will be possible for each generation to infuse ever-new impulses into society. Then what flows out of these full human beings can live in society rather than a new generation becoming a result of what existing society wants to make out of it. (4 August, 1919, p.26; translation by C. Holdrege)

I know that in each student something wants to grow like the growing point of a plant – vulnerable, tender, and full of life. I don't want to crush that!

I cannot possibly unpack all that is implicit in these few sentences. How do we teach without imagining a finished product or clear-cut goal? How do we work with a potential neither realized as yet nor fully known? Here I will focus on high school education, although much of what I bring is relevant to learning more generally.

Who Are You?

As an educator, I believe that the fundamental question about the student becomes: Who are you? I am working with you on a daily basis and yet I don't know you. What is it that you want to realize in your life? Neither I nor the student can answer these questions. If we could, it would mean there was no development. Everything would be clear. Through an ever-renewed effort to engage in this questioning, searching attitude of mind and to work with the students out of it, something new and essential arises in the learning community. What happens is that the students become "large"—that is, I don't just see them as adolescents now with their quirks, gifts, and difficulties, but as participants within a developmental stream of human life. Second, I acknowledge in the students a dimension of inner depth—a realm out of which their individual questions and strivings arise. This realm remains hidden for me if I get caught up in the outer trappings of adolescence. I know that in each student something wants to grow like the growing point of a plant—vulnerable, tender,

and full of life. I don't want to crush that! I'm dealing with a kind of "holy of holies" in each student that warrants deep respect. It needs to be protected, and it needs soul space and biographical time to develop.

In this attitude of mind I become a listener. Can I hear what it is that you are really asking—and listen through the pointed question or the cold logic with which you argue? I'm trying to hear the meaning or intent that arises out of the deeper, hidden source that speaks "between the lines" in word, gesture, and action. And inasmuch as I do hear something, my inner response is: How can I serve what you are saying through my work with you? This is, to state the relation differently, the attitude of the teacher who works as a midwife, helping to give birth to that which wants to come into the world.

In my experience, students notice whether you are working out of such an attitude—which is not explicit but implicit in all the smaller and bigger interactions that occur. It provides a kind of fertile ground out of which manifold learning experiences arise.

I remember quite vividly an interaction with a student at the beginning of my teaching career. He asked a few questions which were leading off topic—which can be fine. But then I noticed that there was more going on—he was trying to get me off topic. At that moment I abruptly shifted back to my chosen theme and we moved on. I reflected on this experience and realized that in a sense the student was testing me, and in so doing he was implicitly asking: Who are you? Do you know what you are doing? I never said a word about what had happened. After this class our relation shifted. He had been distant and present in class with a fairly distinct attitude of disinterest and, on the surface, a look of: Who are you to be teaching me? In that class we had met each other below the surface—closer to the source—and from then on we could interact in more human ways.

The Curriculum – A Task Not a Thing

Every school has a curriculum consisting of guidelines for what is to be taught in the different disciplines and grades. Unlike a walnut that falls on your head when you pass under a tree in autumn, the curriculum is not an act of God or Nature. It is something human beings create. In Waldorf education the curriculum goes back to lectures by Rudolf Steiner and to Steiner's conversations with the teachers of the first Waldorf school. Before I started teaching in Germany I heard, for example, that in the ninth grade one (the ominous "one" who is both everyone and no one) teaches human biology with a focus on the senses, muscles, and skeleton. I was referred to Karl Stockmeyer's book on the curriculum. A teacher in the first school, Stockmeyer took on the monumental task of pulling together Rudolf Steiner's remarks about what could be taught in the different grades and subjects.

To my surprise, I found for the ninth grade in Stockmeyer only one quotation and no commentary. Steiner had said nothing about the senses, muscles, and skeleton in this grade. What he said was:

> Continue the study of the human being so that the students receive a proper grounding in human biology [*Anthropologie*]. This should be done in concentric circles, expanding from class to class, and the other sciences should be added. (September 22, 1920)

Steiner does mention teaching the senses, muscles, and skeleton in the eighth grade. And, in fact, many eighth grade teachers continue to do so around the globe. I don't how or when the tradition began to teach these topics also in ninth grade. Experienced teachers who have done this can tell you much about the pedagogical value and about shifts in emphasis from the eighth grade to ninth grade.

Interestingly, this tradition has not taken hold in the United States, where another

tradition has developed: namely, to teach internal organs and systems (circulation, nervous system, digestion, metabolism, and so forth) in the ninth grade, a topic that is often covered in Germany during the tenth grade. And in the United States embryology is usually taught in the tenth grade while in Germany it is taught in the eleventh grade. I have heard good arguments for both traditions.

I'm not interested here in arguing whether one tradition is right or wrong, better or worse. The Waldorf curriculum is not a "given" that a teacher simply has to accept and implement. It is not some lasting edifice that stands on its own for as long as possible, to which perhaps we occasionally make additions or subtractions. It has developed—and needs to continue to develop to stay alive. In a living organism even the bones, the most architectural parts of our body, are continually being built up and broken down, and adapting to new activities and to stresses and strains that life puts upon the body. They are permeated by life. I believe that we can view the curriculum as something alive that does not exist by itself but is being continually shaped and re-shaped out of the activity of all those involved in the educational process.

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From the teacher's perspective the curriculum then becomes a search, a question, a matter of research. When, for example, we take the "indications" in the so-called curriculum and follow them back to their source in Steiner's lectures or the meetings with teachers, we begin to see them in their respective contexts. They cease being isolated instructions. Moreover, most of the "indications" are anything but straightforward. What might it mean to teach about the organs and their functions in relation to the soul and spirit in the tenth grade? What did Steiner mean by emphasizing "mutual causation" ("*Wechselursachenverhältnis*") in eleventh grade biology? These and many more indications are challenges and questions, not contents to be implemented. We could also say: the curriculum points in a direction; it is food for thought, and the essential thing is that we become active in crafting the curriculum out of our inner efforts, the work with the students, the conversations with colleagues, interactions with parents, and so on.

Engaged Learning

When, as a young teacher, we enter a school, we enter a particular context. We may well be told that in a particular class this or that subject matter is usually taught, and we can take that as our starting point. We can study Stockmeyer or newer books on the curriculum such as the one by Richter and Rawson (2000). We can go back to Steiner's writings and study them. We can talk with our colleagues and experienced teachers from other schools and ask what they teach. We can collect main lesson books from students who have been taught by different teachers. All this can provide orientation and help us on our way. It's the time of apprenticeship as a teacher.

But what is essential during this time is that the recommendations we receive from the outside are not simply taken up and implemented. We need to be inspired by what we teach. The inspiration comes when an idea or recommendation resonates with what each of us as a human being and educator feels to be important and essential. When teachers feel compelled to teach something based on outer authority, the teaching can hardly be authentic and in consequence it will bear little fruit.

Once a new teacher I was mentoring tried some of the things he knew I had done. He told

me afterward that the classes weren't going well. I sensed that he was trying to imitate what I was doing, but wasn't really all that moved by it. When a next block was about to begin, I didn't tell him what I had done. I said, "Teach something you are interested in and passionate about, that you feel the students might take interest in." He took up a content area that he knew well and that he found significant and interesting. He began teaching out of himself, and the content was permeated with his being. This, I believe, is what the students perceive and acknowledge. The classes went much better. The students were more involved and interested.

Of course, being inspired about a topic is not enough. After a year or so of teaching, I was asked to teach geology in the ninth grade. I prepared, spent time in the Alps, scouted out areas nearer my school for field trips, and so on. After all this I had the feeling: this may interest you, but it's not going to interest the students. I had a horrible feeling that the block would be at best a minor disaster. Luckily, I was able to arrange a conversation with Günther Zickwolff, an experienced teacher. We sat together for an hour. He did not focus on what to teach, but described how he brought geology to life in the classroom. After that hour I knew what was missing in my preparation. Zickwolff had described riddle after riddle that geologists had faced when confronting the world of rocks, mountains, glaciers, and so forth.

I realized, for example, that my task was not to tell the students that rock layers have different ages. Rather, I could let them follow William Smith's wandering through England examining rock layers, collecting and comparing fossils from different layers. What did it mean that some fossils were only in distinct layers and that he could find these "index fossils," as he called them, in various parts of England? How could we understand that the fossils resembled aquatic organisms? How might we describe how the layers of fossil-containing rock came about? What might our musings lead us to think about the difference between upper and lower layers?

After trying to craft learning encounters in this way with the students, it became increasingly clear to me that they were learning to experience their surroundings as a world to be explored rather than as a set of facts to be learned, and also that they were participating in the way living science unfolds. I tried to become more aware of and to avoid the teacher's tendency to provide de-contextualized answers to questions that the students never asked ("There are three fundamental types of rocks…"). We explored together, often guided by the work of great scientists who had explored before us and who had shown by example what it means to be a careful observer, to be persistent, to ask questions, to learn from mistakes, and to recognize relations that at first are not readily apparent.

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The effort revolves around letting a process unfold in which the students can participate and take interest. Interest is strongly awakened through riddles, for when riddles arise in us, we become active and engaged in a search. We don't begin with answers to questions the students never had; we provide a context that leaves space and time for the students to explore, to formulate ideas themselves, and to consider how their ideas relate to the phenomena. Riddles are an opening into the unknown future.

What's important is that we have entered a process of inquiry that does not stop for as long as we teach and learn. We have left behind the curriculum as an authority that says: "This is what must be done." The individual in us needs to be active and striving, questioning the courses we develop. In this effort (and it is the ongoing effort that matters) as a developing, searching being, I meet the students as developing, searching beings. In other words, we meet as beings of activity, as beings therefore not limited by what is and has been; we are open to the potential we call future, a potential that as a source of life can work into the present at any moment.

Teachers and students together are open to the potential we call future, a potential that as a source of life can work into the present at any moment.

The Presence of the Unknown

I often taught a botany block in the twelfth grade near the end of the school year—right before the students were to present their individual year-long projects and before their stage play. In other words, not exactly an ideal situation for classroom learning. I developed the block as a field course, and the plants themselves taught most of the content. We would go outside nearly every day and observe, describe, and identify wildflowers growing in the different environments around the school. By entering into a dialogue with the plants through their work, the students recognized that plants are quite remarkable creatures. And in observing many different plants, they began to get a sense for different growth forms, flowering patterns, and the relations of specific species to specific environments.

In one class, toward the end of the block, we were sitting at the top of a wooded hill studying the wild columbine, a plant that grows on rocky outcrops. It was hard not to be drawn to its remarkable hanging and highly structured scarlet-red and bright-yellow flowers. While the students were observing, writing, or drawing, one of them asked, "Mr. Holdrege, where do all these plants come from?" Out of the whole situation, it was clear to me that this was not a question to be answered. Every answer would have fallen flat in light of the reality which, for a moment, this student had inwardly touched. I think I just looked at her and nodded in the inner acknowledgment that I have the same unanswered question. This was a golden educational moment that I cherish to this day.

Something of the normally un-manifest and deep nature of plants had become present in this student's soul, and her response to this meeting was wonder and a question. The experience of such a presence is not clearly outlined and definable because it is an opening into a reality that can still become, that has depth and potential. For this reason it is experienced as alive and vital; we touch a common source of becoming in ourselves and in the world.

Every time wonder arises in the encounter with the world, when questions spring up, when the students see riddles that ignite inner movement, when answers not only bring satisfaction but are an opening into even deeper questions, when the students are experiencing a teacher who is also searching and learning—in all of these ways the unknown becomes present in education.

Education as Encounter

What I have been describing is education as personal encounter. For teachers, there is so much that we can bring into contact with the students. We have to be selective—especially since encounters don't just happen, they grow out of engagement and dwelling with things. So the question arises: What learning situations do I want to facilitate for the students—which processes do I want to help get started—so that I prepare the ground for these kinds

of encounters? What is worthwhile for the students to engage in and learn from? At the beginning of a block or course, I asked myself such questions. They helped me to think more about why and what I was doing and also to become more attentive to those times when I felt that encounters were actually taking place. Over time you can begin to develop a kind of sense organ for the quality of these encounters. You can't make encounters happen, but you can become aware of them when they do happen and reflect on the processes that facilitate their happening.

The philosopher Albert Borgmann speaks of " 'reality' taken in the sense of genuineness, seriousness, or commanding presence, the sense we have in mind when we speak of real gold as opposed to things that merely glitter and of a real person, a mensch, as opposed to a dude." (1995, p.38) He goes on to say:

> What is eminently real has a commanding presence and a telling and strong continuity with its world. … Whatever engages our attention due to its own dignity does so in important part as an embodiment and disclosure of the world it has emerged from. (pp.39–40)

We can encounter many presences: a biographical story, a rock formation, a plant, wood or stone in carving, a great novel, the images of a poem, serious conversation in the classroom, a campfire, a myth, carrots waiting to be harvested, or questions of an inquiring scientist. All these "things" and many more are genuine presences that the students can meet. They all are rooted in larger contexts—they aren't glitter and surface, but have depths to reveal, each in its own way. Meeting them allows us to glimpse or touch the deeper unknowns of the world and ourselves.

In such encounter-based learning, education becomes life. It is not merely preparation for what comes later, in a linear sense. This is an insight and a practice that inspires: education is about real encounters! It can move us to review and assess our current practices so as to consider how much encounter-based learning is actually occurring. This, in turn, may lead us to seriously question some forms and practices that schools and education have assumed. Should we strip school of some of its artificiality to make room for the dynamics and explorations that are needed to breathe more life into education? What might we need to do to de-school school so that we can more adequately serve young people? What would we do if we could move beyond the mental pictures of "school" and beyond habits that limit our imaginations?

Through encounters with genuine presences students have experienced depths and meaning and becoming. We have reason to hope that the world will not be prepared for what they can bring to it.

As with anything real, these questions cannot be addressed abstractly and generally. They need to be addressed concretely, on the ground, in ways possible and appropriate for groups of educators and students working in different cultures and countries.

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Wherever in the world students are engaging in some form of exploratory, encounter-based learning, something important is happening. These young people are plunging into processes, experiencing challenges, grappling with difficulties, raising questions, and working with nascent insights. Through encounters

with genuine presences, they have experienced depths and meaning and becoming. They are not separate from these creative sources. We have reason to hope that the world will not be prepared for what they can bring to it.

References

Borgmann, A. (1995). "The Nature of Reality and the Reality of Nature." In M.E. Soulé and G. Lease (eds.) *Reinventing Nature.* Washington, DC: Island Press.

Rawson, M. and T. Richter (Eds.) (2000). *The Educational Tasks and Content of the Steiner Waldorf Curriculum.* Forest Row, UK: Steiner Schools Fellowship Publications.

Steiner, R. (1972). *Zur Dreigliederung des sozialen Organismus: Gesammelte Aufsätze 1919–1921.* Stuttgart: Verlag Freies Geistesleben.

Steiner R. (1998). *Faculty Meetings with Rudolf Steiner* (2 volumes). London: Rudolf Steiner Press.

Stockmeyer, K. (1991). *Rudolf Steiner's Curriculum for Waldorf Schools.* Forest Row, UK: Steiner Schools Fellowship Publications.

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