

ON THE ESSENCE OF EDUCATION

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The pragmatic essentialism

This is a contribution to the project of redefining the educational theory as a discipline, not merely as a field for application of other disciplines (Biesta in press). If educational theory is a discipline, it should provide a unique lens to view the entire social world. Educational theory would then not only contemplate the world of schooling, or even the expanded world of educational experiences outside of schools. It would also offer an insight on the educational aspects of the economy, of politics, of communication, of culture, etc. Zooming out away from schooling allows zooming in on education.

Why is it important? - Because the world of mass schooling seems to be nearing a crossroads and we lack sufficient theoretical understanding to see where it can and cannot go next. Focusing on contemporary schools too narrowly limits our understanding of what education is and therefore what it can be. Identifying education with one of its historical manifestations creates a blind spot which makes radical rethinking of education difficult. We are bound too much to the tropes of classrooms, schools, students, and teachers to imagine how education can be otherwise. The education conceived as a field is incapable of providing answers, while the educational theory as a discipline may have a chance.

The need for essentialist thinking arises at the point where arbitrary definitions no longer work because of the overwhelming evidence of objectively existing limits which we do not comprehend. A baby comprehends the essence of a stone when she tries to eat it, and cannot. Making noise with it, in contrast, works. Billions of babies come to similar conclusions about the nature of stone, and this background knowledge makes language and cooperation possible. Thus the essence of a phenomenon is tested through the collective human practice, and is revealed when such practice succeeds or fails. Essence is what we can and cannot do with any given kind of things. Let us call this approach the pragmatic essentialism.

Learning and education

Education owes its existence to death. Another species that is immortal or nearly immortal would have a very slow or null rate of reproduction. Each individual would have plenty of time to learn everything slowly, and plenty of time to use the knowledge. Gods and immortals won't need education, because there is no rush to mature, and there are plenty of teachers. Such a species would no doubt outpace us in scientific and technological progress. They do not need set aside the tremendous resources dedicated to constant re-learning of everything, from alphabet to algorithms, every 70-90 years. We, however, live relatively short lives; too short for complex technological societies. The time spent on learning grows, while productive lives shorten. The trend can be compensated by growing productivity for only so long, because much of productivity depends on learning how to work and how to deal with machines that work for

us. We have to learn fast, and as soon as we get good at anything, it is time to check out. One reason we abhor death is that it seems to be a tremendous waste of the most precious commodity: our own memory and skills. To cheat death, we keep inventing new and new forms of learning.

0. Learning 0.0, pre-learning, according to Darwin, is evolution itself. Each new generation “learns” something new, when the fittest survive. However, true learning begins when a single organism rather than a species can adapt.
1. Learning 1.0 according to B.F. Skinner; we share it with animals. It is simply learning from one’s own individual experience. An important correction, which we can call Learning 1.5 have been made by Albert Bandura, and includes observational learning, also shared by most animals.
2. Learning 2.0 according to Vygotsky. Working together with a more advanced person seems to trigger faster learning about both the physical world and the social world. We learn ways invented by others, but not just through observation as in 1.5. This is where for the first time, teaching emerges. When people cooperate, the leader becomes a teacher
3. Learning 3.0 is schooling, which makes teaching and learning a matter of division of labor. To free up most adults from teaching, one teacher is put in charge of many students. It makes teaching cheaper, although not without a cost; let us call it the differentiation dilemma. Teachers need to accommodate individual pace and challenges unique to each student, which is hard to do for a group of students. Shared space requires common activities. Therefore children waste countless hours waiting for other children to learn what they already know, or because the material goes over their heads.
We should distinguish between Learning 3.1, schooling for the elites, and Learning 3.2, the mass schooling. The latter is a very different social institution, no longer based on the power to exclude, and therefore constantly troubled by low levels of learner motivation. This is where we are in the industrialized world, moving from 3.1 to 3.2. While at times it thinks as a very important transition, central to the essence of education, it should be viewed as just one small change, peculiar to our historical circumstances.
4. Learning 4.0 is only emerging. It promises to solve the differentiation dilemma brought with the help of information technology. The crude prototypes of self-training artificial intelligence can be found in Google, Face Book, Netflix, and Pandora algorithms. They may revolutionize learning within our lifetime, by learning from every student where she is, what works for her to learn better, and where she needs to go next. Teachers will concentrate on designing unique learning strategies for unique learning problems, and be freed from creating tasks for every student.
5. Learning 5.0 will defeat death itself. We will learn to extend our productive lives (and accordingly slow down our rate of reproduction). And/or, we will learn to download semantic memory more efficiently into our children’s’ minds.

Somewhere between 3.1 and 3.2, we exhausted the natural endowment of curiosity evolution allocated to our species. We had to invent ways of artificially extending our capacity and interest in learning. As species, we acquired too much knowledge to be transmitted in the natural way, and developed the need for artificial enhancements. The brief history of learning illustrates the relentless drive to learn more, more quickly, and more efficiently. Education is not identical to learning, as Biesta (2011) pointed out. It is a set of methods to make learning more efficient, faster, and more focused than it would have occurred naturally. Education is learning that is enhanced, organized, and structured. Education to learning is what writing is to speech, vehicle is to walking, farming to gathering and husbandry to hunting. A clear understanding of this will prevent educators from continuously being enamored with the effortless ways in which little children learn. The illusion prevents them from seeing that education is, in essence, a response to the shortage of natural learning driven by the child's interest.

Learning as doing

Education has always been examined and described by teachers. Learners did not have much of a say about it, because they are younger, less experienced, and less eloquent than teachers. By the time they are able to articulate better, they tend to switch camps and become teachers. That is why education has acquired the epistemological bias favoring teachers' point of view. It is often thought about in terms of teacher-student relationship; something that happens between the two. While the figure of a teacher is important in the contemporary modes of education, it is not necessary for education to occur. Once a hunter starts practicing his archery on a target, he creates the elemental act of education. The transition from shooting at animals to target shooting is the move from simple learning to education. It requires a fundamental shift: the hunter must realize there is something within him – the skill of archery – that can be created separately and purposely. Education can also be described as purposeful making of internal tools – as opposed to the making of external tools. The ability to shoot arrows has to be manufactured in the sense very similar to manufacturing the bow and arrows.

A human being can do something for two distinct purposes: to transform the world and to transform herself. I will use Marx's and Engels description (1847):

Bisher haben wir hauptsächlich nur die eine Seite der menschlichen Tätigkeit, die Bearbeitung der Natur durch die Menschen betrachtet. Die andre Seite, die Bearbeitung der Menschen durch die Menschen ...

Before we have considered mainly only one side of human *Tätigkeit*, the processing of nature by the human intent. The other side, the processing of humans by other humans... (my translation)

Tätigkeit is normally translated as activity or occupation; it literally means *doingness*. "Occupation" sounds OK if used the way Dewey used it: "By occupation is not meant any kind of "busy work" or exercises that may be given to a child in order to keep him out of mischief or idleness when seated at his desk. By occupation I mean a mode of activity on the part of the

child which reproduces, or runs parallel to, some form of work carried on in social life (1915, 131).” *Tätigkeit* is the kind of activity that transforms or creates something. But it is definitely not “activity,” not *Aktivität*. The Russian equivalent *деятельность* as used by Vygotsky and Leontiev is also very different from more generic *активность*. The latter is simply an opposite of being passive, the non-restful state of a living organism. The former has an object and a purpose.

Any *Tätigkeit* has the two sides to it; let us call them the object-transforming aspect (OTA) and the subject-transforming aspect (STA). For example, baking turns a lump of dough into a loaf of bread – this is the OTA. But the baker also learns something new, even infinitely small, with every loaf he bakes. Learning is everywhere, in every human *Tätigkeit*, and it constitutes the subject-transforming side of it. All subjects transform themselves in the act of doing. When the baker is a novice and the loaf turns into a pile of coals, the learning aspect of his activity stands out, becomes immediately visible. When he is baking his millionth loaf, the STA recedes into background and becomes infinitely thin, while the OTA becomes pronounced and dominating. But both aspects are always there. The hunter practicing his art of archery has very little chance to obtain food from shooting arrows at targets. The STA of this activity is infinitely more important than OTA. Education is practicing something – shooting arrows, baking, reading, writing, and thinking, researching, voting, and acting; anything done for practice.

Education is *Tätigkeit* where the subject-transforming aspect dominates the object-transforming. Sometimes this distinction is completely obvious, when the product of *Tätigkeit* is very much useless, and serves no other purpose than to be used for practice and be discarded. An intern working for a company produces a proposal that is much more likely to end up in the waste basket than those produced by regular workers, but it may actually be used to generate value. The distinction between education and production here is more probabilistic than deterministic.

The point of all this is that the heart of education is the learner’s own work. It is what the learner is doing, and how she is doing it that makes certain kinds of *Tätigkeit* educational. Education is not what a teacher does to a student; it is what a student does to the world and through doing it, to herself. Teachers are managers and collaborators in this self-transforming work; they lead and help organize this work, but they are incapable of actually producing the change within the learner. You can lead a horse to water, but you can't make it drink; this is a description of the essential limits of education. It cannot be done for someone else. Learners produce the change within themselves by transforming something else.

Education as a labor arrangement

This means that education, at its core, is a specific labor arrangement. Since the natural capacity for learning is not sufficient to carry education, humans have devised a variety of ways to organize and incentivize the educational *Tätigkeit*. In other words, for a society to educate its next generation is to compel student to work on learning.

The two premises with which I begin are: (1) education is the artificial enhancement of learning, and (2) education is mainly the result of the learner's own purposeful *Tätigkeit*. If one accepts these, one should also agree that education requires a systematic application of learners' own effort not otherwise motivated by profit, pleasure or interest. That constituted labor of learners as an essential element of the entire educational enterprise.

History knows many labor arrangements used in education. The most common is the use of traditional expectations and of the power of familial relations. This ancient arrangement is still in place in many societies, where the authority of the family, clan, and community is directly transferred to the school. The combination of the patriarchal structure with modern economics is behind such educational "miracles."

To put it simply, it is still possible to teach in the traditional way in Finland because teachers believe in their traditional role and pupils accept their traditional position. [T]he model pupil depicted in the strongly future-oriented PISA 2000 study seems to lean largely on the past, or at least the passing world, on the agrarian and pre-industrialized society, on the ethos of obedience and subjection that may be at its strongest in Finland among late modern European societies (Simola, 2005).

Another form of labor arrangement is the use of selectivity. If a school is allowed to expel most or significant part of its students, it possesses a powerful enforcement mechanism. Schooling brings significant material benefits and cultural capital, distributed very unequally. This compels privileged students to keep working on learning, with a few exceptions of those truly opposed or allergic to schooling.

Yet another form of the educational labor arrangement is the state coercion. Authoritarian and totalitarian countries use it for all forms of labor, not just for learning. It is based on brutal force in combination with surveillance. The educational labor produced as a result of it, is not very productive but it creates the appearance of order. It would be fair to notice that democratic countries also use the administrative coercion method to keep children in schools. The compulsory education laws evolved as a reaction to limiting industrial child labor, but since have turned into an instrument of enforcement for another form of child labor, the educational labor of students in mass schools. Democracies are not necessarily democratic in their school policies; the societies that cherish individual rights may not afford granting the same rights to their youth.

The list would be incomplete without mentioning the ideology of Enlightenment. The idea is that a human being is incomplete without education, and that the pursuit of education is disinterested and noble. Although quite old, this method of labor enforcement is very much alive and active. Keeping the education discourse separate from economics is designed to create an additional incentive for children to work at the educational factories for free for many years. The discourse of Enlightenment is an actual means of production (Sidorkin, 2011 in press). Children convinced that education is a good thing produce actual economic value, for having an educated workforce and citizenry is an enormous public benefit. This arrangement has its limits, too. The over-production of discourse creates inflation. More and more students

distrust the discourse, and create alternative cynical discourses. Without the backing of the state or the traditional family, the discourse of Enlightenment is a weakening force.

And one more mode of the educational labor arrangement is worth mentioning. It is based on an exchange: students contribute their educational labor, while progressive schools compensate them with entertainment, the sense of belonging and identity, and the life of the community (Sidorkin, 1999). As all other methods above, it has serious limitations: students may find all of the good offered at a progressive school elsewhere: in mass media, neighborhoods, and other communities.

There are probably many more arrangements for educational labor. They all may be used in various combinations, complementing each other. This overview is only meant to be an example of labor analysis. It is also interesting to see what is not on the list. The largest proportion of all human labor on the planet is produced through capitalist labor markets. There are only small areas of volunteerism, domestic work of women, conscript armies, forced labor of prisoners, and remaining pockets of slavery and bound labor. All of them combined are not significant with respect to the total global labor output produced by paying people to work. The labor of students is an enormous exception: a form of non-free labor outside of monetary relations. Trying to pay children to learn is the next logical step in development of schooling.

It is also important to note that there is a fundamental limit to how much labor can be extracted from a human being, with or without force, with or without pay. It presents a limit for development of our civilization that it is worth considering. Some believe that the capacity for learning is unlimited, and that we can compel all of our children to work very diligently for as many years as we think appropriate. This is an unrealistic, utopian expectation steaming from misunderstanding of the essence of education.

Educational theory as a discipline

Educational theory can be construed as a discipline because of the ubiquity of the subject-transforming aspect in all kinds of *Tätigkeit*. Literally every organization, community, every enterprise can be analyzed from the point of view of the extent and the nature of learning that is happening in it. Organizations that are excellent on the object-transforming (OTA) side, may be quite light on the STA productivity, and vice versa. The task of educational theory is then to understand the relationships between the STA and OTA, which include assessing how various ratios between the two affect productivity and worker motivation. An educational consultant may bring a unique perspective to business: “Your quality controls are too rigid to allow for meaningful learning. You should allow for a small percentage of your output to be dedicated to learning, and therefore not to be intended for sale. You rely too much on work force that is already educated, which reduces the learning capacity of your organization. This is why your company cannot innovate anymore.”

It is not clear to me that education should be so heavily concentrated in schools and so thinly represented in other organizations. Schooling itself is the product of the division of labor. The STA-rich forms of labor were put in one social institution, while OTA-rich activities remained in

the main economy. But they may have gone too far. Humans evolved to value purposeful work with useful results. Schools are an aberration in this scheme of things. Schools are so ineffective because products of student work have no purpose other than to boost the skills and capacities of their producers. It is very difficult to convince children to do the work, results of which are discarded.

With this analytical lens, we should be able to say more about our own backyard, the schools. Can they increase their OTA to improve learning motivation? Almost nothing produced in schools is being consumed, or enters the market. Literally, every essay, every poem, every mathematical calculation students produce goes to the wastebasket. The great insight of Progressive Education was, in a way, to increase object-transforming aspect, making children's "occupations" look more like adult productive *Tätigkeit*. The mistake was to believe that all learning can happen through the OT-rich kinds of *Tätigkeit*. This is impossible for a variety of reasons, however it is very reasonable to learn the natural limits of such a plan, and to design better mixes of OT-rich and ST-rich areas of *Tätigkeit*.

Educational theory should understand how education is distributed throughout the society, and how it can be distributed better. How much teaching is really necessary, and how much of it is superfluous? Where do teachers act as teachers, and where do they simply enforce the compulsory education laws? Would it be actually less expensive to pay students to learn and have fewer, more specialized teachers aided by artificial intelligence? Those are the kinds of questions the true educational theory will consider.

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