2007 Interview on Cultural-Historical Activity Theory

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The interview with Professor Yrjö Engeström took place on November 2, 2007, at his home in Sipoo, Finland, with Katsuhiro Yamazumi (Professor, Faculty of Letters, Kansai University) and Katsutoshi Yamazumi (Director, Earthquake Learning Lab, Futaba Community Learning Center) as the interviewers.

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Katsuhiro Yamazumi
First of all, I would like to ask your thoughts on the dialectical relationship between school criticism and the active role of schools in social change during the age of student movement. Second, how have you developed cultural-historical activity theory since the 1980s or so? Third, what is your opinion about the future vision of activity theory that you are now challenging? Fourth, you refer to Gregory Bateson in your *Learning by Expanding*, so what influence did Bateson have on your thought regarding activity theory?

Katsutoshi Yamazumi
And the fifth question is, given that you use American literature, for example, Mark Twain's *Adventures of Huckleberry Finn*, I'd like to ask you, do you think that even researchers in the social sciences require the humanities? And the last question, which is concerned with modern technology. You often talk about new technology, including, for example, mobile phones, e-mail, computers, and so on. How does new technology influence your thoughts? Do new technologies change your thoughts or not?

Katsuhiro Yamazumi
Let's start with the first question. When I look at your short bio, it states that you published journal articles and books concerned with school criticism, with

educational criticism, when you were at a young age, in your twenties. I found these publications characterized in two relevant ways. One way is as a radical educational criticism against the existing establishment of schooling, and on the other hand as, the direction to discovering the active role of school in social change. Let me take an example. Your first published book, when you were 22 years old, was titled *Education in Class Society: Introduction to the Educational Problems of Capitalism* in 1970. This book was written in Finnish. I haven't read this book but I guess it is a radical criticism of established schooling. On the other hand, I can find a different kind of direction in your educational research, for example, your 1969 journal article titled, "Schooling as a Transformer of Society." So, I would like to know, in your view, when you were in the student movement in Europe from 1968, what is the dialectal relationship between the two different movements of schooling that you thought were important issues of educational research?

Yrjö Engeström
That's a good question. In the early years, when I was writing, like you said, I was very young, and it was very heavy criticism of schooling as a conservative force that socializes young people into the ways of thinking and acting that correspond to the needs of the capitalist consumer society, and also criticizing schooling for its selective functions that tend to serve the stability of the existing class structure so that the working class children end up being educated to become working class adults. Also the very economic function of education is basically to produce labor force for the needs of the capitalistic economy. All these criticisms were connected to the start of the student movement. Much of the energy of the student movement came from criticizing our own experiences as students in schools and universities.

On the other hand, in those areas I was also looking for alternatives that could turn schools into a radical force in society. My first challenge was to find alternative schools. So for instance, in 1968, I went to the Summerhill School in England and spent some time there. I interviewed Alexander Sutherland Neill, who was the founder and the leader of the Summerhill School, and tried to find inspiration from the so-called "alternative schools." I even tried to start one here, a kind of Finnish Summerhill. We ended up starting only a kindergarten. But it still exists, actually as an alternative form of education. But when I got more deeply into reading Marx and more dialectical literature, I started to understand these alternative schools themselves. Typically, they remain marginal. They'll very seldom have any serious impact on society or the larger education system. They often actually became little elite islands, separated from the rest of the society. In that sense, the split between critics and the mainstream of education is almost complete. Critics completely rejected mainstream education, and then they looked for a totally separate alternative form of education. That is not a dialectical way to think and act.

So gradually I started to work more with progressive teachers inside normal

comprehensive schools, and to find ways to collaborate with teachers so that they could look for new forms of teaching inside their schools. But it was very difficult, especially in the 1970s and still in the 1980s. In Finland, the school system was very centrally regulated and very centrally administered, so that individual schools and individual teachers didn't have very much freedom to change and experiment. We tried to implement some ideas from Davydov's way of teaching theoretical concepts. For instance, in history teaching in the early 80s. As isolated experiments, they were successful and we could reach quite good results. But at the same time, the teachers became very tired because they got no support from the authorities, no support from other teachers, no support from their headmasters. So, they ended up doing a lot of extra work without support. That gradually led me to think that you can't start in the individual classroom, or with individual teachers, you have to start with the whole school.

So later, when we had worked more with the various kinds of workplaces, actually 20 years later, at the end of 1990s and beginning of this millennium, we returned to schools. This time we worked with entire schools, so that all the teachers of schools, and headmasters, and even parents, and some students would be involved in analyzing together how to change their own school practices. So, this led to the idea of using the Change Laboratory method in school settings together with all the members of the school community.

And today, I think that our next step probably will be, we will even involve the authorities: education authorities from outside the school, so that also those who supervise the schools will be involved in this kind of change effort. I think that even though change has to be grounded in local activity, at the same time there should be a lot of boundary crossing from that local activity to other activities that are empowering or can collaborate with the local activity, so that Change Laboratories should not be conducted only within one single school,

but also involved with other collaboration partners or those who are in power, above the school, in the administration. So, this kind of efforts, I think, will be our next step in trying to look more dialectically at school change.

I don't think that we can create a perfect school that is a complete alternative to existing schools. I think that what we can do is to make those contradictions more visible and more understandable for the practitioners so that they can work with the contradictions. Every school has both some conservative and some radical potential because, in the end, the school always offers the possibility to learn. Oftentimes the possibilities seem to disappear, because the school's focus becomes just running the school. You know, the mass production of students. But the opportunities are there, and schools have a lot of human resources that are devoted to learning, even though they often struggle. The teachers often struggle because they see that it is very difficult for them to achieve real learning.

I think at the moment the crucial issue is actually to look at schools in relation to other sources of learning. Students, of practically all ages, are not only involved in learning inside of classroom, they also go to the Internet, they watch television; as they move around, they have a lot of possible sources and areas of learning. And this, I think, creates an increasing pressure on schools to open up, to see that they do not have a monopoly over learning, they have to collaborate with others. And at the same time it also creates new resources for the students. Students can actually bring in new knowledge to the school. So that it's not just the school that is the source of knowledge, oftentimes students know more. And the teachers often learn something. So we need to turn this into a more horizontal exchange of knowledge rather than a vertical top-down, handing down of knowledge. I think that real change is happening in society and in culture, making it now more possible than ever for these new forms of educational practice to actually emerge. But one lesson is that you have to be very patient and persistent, it doesn't happen quickly. Long-term partnerships between researchers and school teachers and other forces in societies that can join in this kind of stepwise reorganization of learning are needed. This kind of process is full of conflicts and contradictions. There is no doubt about that. But I think that that also makes it interesting.

Katsuhiro Yamazumi
Thank you very much for summarizing the long history of your years of research on schooling and also pointing out the new research agenda of school innovation. So next, I'd like to ask how you've created cultural-historical activity theory, which involved the many scenes of your research history.

Yrjö Engeström
Of course, I haven't created anything alone. It has been built on the foundation created by scholars' long before us. There were two pioneers: Vygotsky and Leont'ev, among others. And then after them, there were also very important

scholars of a kind of intermediate generation, for instance Davydov, Lektorsky, and others in Soviet Union, now Russia, who'd already started opening up toward the rest of the world and to go to international conferences. For me, the most important personal source of inspiration was Davydov. This was in the 1980s, the student movement was fading away but there were still some of these activities. Already at that point, we were able to invite Davydov here to Finland. And that was a very important direction, a very important collaboration because...

Katsuhiro Yamazumi
What year?

Yrjö Engeström
The first time he came was in 1982. The initial idea was that as students we were looking for radical alternative ways to think about education and think more broadly about human beings. What could be an alternative to the dominant statistically oriented educational and psychological approach that saw people only as collections of traits and differences, turned into measures of their intellect or personality features. That kind of positivist and behaviorist background was dominant in the university when I was a student in 1970s. The search for alternatives led us to find Vygotsky, Leont'ev, and also Davydov.

For me, the first step was trying to use these theoretical ideas in the study of school students' imagination. This was in 1978–1979. In Finland, we had to write two dissertations. My first dissertation was about the imagination of school students. A large number of 5th, 7th, and 9th graders, altogether over 1700 students, wrote essays, fantasy essays. I analyzed their essays, and tried to use available theories on imagination. Of course Vygotsky and his followers have a very interesting approach to imagination in which imagination is not seen as a compensation for life or for reality but as a sort of resource for finding your new potentials. This served as a very important impulse for me to try to understand imagination from an activity point of view. Because much of the western, American studies of imagination were based on psychoanalytical concepts, in which imagination is seen as compensation for life. The idea is, for instance, if you can't react violently to some violent television program, then you can live through this violence in imagination and compensate for action that way. And I found in my data also that this is not at all how it worked. The imaginary violence and actual aggressive behavior were very strongly connected to one another. It is not a compensation relationship, it is the relationship in which human beings are involved in real activities and imagination is one of their key resources. These resources can be developed to open up new possibilities. Then imagination changes its nature. It is not anymore imagination that operates with preconceived images of mass media. Imagination can be truly original and creative. But how to reach that kind of use of imagination is a big challenge for education.

From that study, I went on to study actual learning and instruction in classrooms and tried to use, as I mentioned earlier, Davydov's method of ascending from the abstract to the concrete in some teaching experiments. I found that Davydov's theory of the formation of theoretical concepts and theoretical generalizations was very powerful. But the problem of this theory was that its creators did not look at the school in its societal context. They took what was happening inside the school as being a little bit of a vacuum. This was largely because the social conditions in which Davydov was working did not allow him to look critically at the contradictions of the broader society. So he was very critical of the school, but he could not engage in looking at learning outside the school, for instance. So we ended up in our little experiments with the problem that working inside the classroom was not enough. The teachers needed greater support, there'd have to be real changes in the whole school. As this seemed impossible at the time, I used the opportunity to move to study learning in workplaces.

This shift happened in 1983. I started a project on cleaning work. We looked at the cleaners who clean apartments or offices, very simple manual work. We wanted to see what kind of cognitive and intellectual potential can be found in such work, which is usually considered completely non-intellectual, just manual routine. And of course, we found out first that every cleaner does the prescribed actions slightly differently. There is no single standard way. Each one of them creates their own way of working, and there is in fact a lot of variety in something that looks completely monotonous. There is also deep history. These cleaners worked for a commercial cleaning service, but they had extensive experience of cleaning at home. So the models of home cleaning, which are very old, tended to perpetuate a kind of influence over how they worked in commercial cleaning. You have learned at home to clean once a week, and make it completely clean. This image, this idea, this kind of historical tradition of home cleaning then influences how you work in the commercial cleaning. Even though, for instance, at home you want to have the home very clean for the weekend, and if you habitually do that in commercial cleaning it's crazy, because nobody works at the workplace during the weekend. So if you make the workplace clean for the weekend, you work to make it clean for nobody. This study started to reveal to us that it's very important to look at history, at the historical dimension of how people think and do their work. This is when activity theory became very important because it is *cultural-historical* activity theory.

I had always been wondering why history is referred to so infrequently in many activity-theoretical studies. And when we went to workplaces, we started seeing that history is actually there. When work changes, you can see that earlier historical layers are still there, and they influence people's work very much. Especially if people are not aware of these historical layers. And the way we started studying this, in 1983 and 1984, we started using extensive videotaping and also a stimulated recall interview technique. We videotaped a

cleaner working in a room, then we showed the videotape and asked her to explain what she was doing and why. And this turned out to be a very powerful technique, because it allowed, at the same time, a kind of external or "objective" data and, at same time, an internal subjective view. We had our outsider's interpretation of the actions, but the subject herself could also tell her own version of them.

Later, we used that in doctor–patient studies as well. So, we showed the same videotape of a doctor–patient meeting, first to the patient, and asked her to tell her story. And then we showed it to the doctor and asked him to tell his story. So, it generated multi-voiced and mutual sets of data. We have an external view, and at least two internal views. This made it very powerful, because a crucial aspect of activity theory is that it is a systemic theory that looks at historical systems; how they evolved and changed, how the contradictions take shape. But it is also a theory of subjects, in which the subjects' points of view, the subjects' personal agency, and the subjects' personal possibility to influence history have to be taken as a central starting point. So you have to combine the systems view and the subject view. This technique that we developed in the early cleaning study served as a very good foundation for that kind of a methodology.

Those studies of work, first the cleaning study in 1983–84 and then after that the study of health center work, the primary health care studies conducted here in the city of Espoo near Helsinki between 1986 and 1990; they were very formative for me because they allowed me to develop the idea of developmental work research, which became my own preferred methodological implementation of activity theory. So activity theory was not any more just a theory but also a practical methodology. In the middle of those studies, in 1987, I then published *Learning by Expanding* which is an early summing up of both the theory and methodology. The theory of expansive learning became the core of my version of activity theory.

But, at the same time, I had to work out several problems in the traditional activity theory. The biggest problem for me was that Leont'ev had created a concept of activity as a collective formation which is clearly distinguished from individual action. Yet in his empirical work, he mainly studied individuals, not collectives. And this is true even of the followers like Davydov, even though they spoke about learning activity, activity as a collective formation. When it came to actual empirical studies, typically then they studied individual subjects. This was for me a big dilemma because this also meant that the methodology was underdeveloped. The methodology was still very much individually centered even though in the theory the basic unit of analysis is a collective activity.

So, there was this gap. To overcome the gap, in *Learning by Expanding* I developed a way of modeling a collective activity system. Leont'ev and his followers never had continued from the simple triangular model of action presented by Vygotsky. Even though they spoke about activity, the activity was

never modeled, only action: subject, object, and tool; or subject, object, and sign, but never the collective aspect, the collective aspect was always missing there. So that's why it became important first of all theoretically to model the activity system as collective activity, and secondly to create a methodology that would put in the center the idea that we need to study actually collective formations, not just individuals.

That is what developmental work research meant, and that is what expansive learning is all about. It's about learning that is basically collective, the learning activity is something that is done by people working together, not by a single individual. If a single individual tries to engage in expansive learning, it's going to be a very difficult, if not hopeless, attempt. You have to find others to help you change the structures around you; you can't change them only by yourself. Those years in the 1980s were decisive for my ideas. This was when I formulated the foundation of my own version of activity theory: activity theory as decisively oriented at collective activities and their contradictions. And historicity in real activities, not just as a general principle but as a concrete methodological principle of digging into the history of local activities. And this required interventions, formative interventions which really grope at the possibility of collectively creating zones of proximal development for the activities. All these foundational ideas were both formulated and for the first time tested in the 1980s.

After that, actually already in 1987, I went to work in San Diego. But I continued the research in Finland with my research group. I had colleagues and returned regularly to work here. But San Diego made it possible to get much more discussion with related approaches, for example with people who do conversation analysis, ethnomethodology, cultural psychology, situated cognition, distributed cognition, symbolic interaction, actor-network theory,

and so on. That was very fruitful. There I could not only develop my own version of activity theory but actually try to put it in dialogue with other approaches that I could learn from. I think it made my own work better, but also it created a kind of interest around the world. People started to ask what this kind of approach might offer. So that kind of networking and opening up to other theories have been very important for my version of activity theory. It is not a closed theory.

The work then led to our starting the center here in 1994, the Center for Activity Theory and Developmental Work Research. Most of the 1990s we have been developing the methodology, developing the theory by studying various kinds of activity settings, ranging from industrial workplaces to schools, and even homes. A very broad range of empirical study have been conducted. I've just counted that in our doctoral program, here in the center, we have produced 21 doctoral dissertations. And that's a good set of empirical studies. Activity theory gave a good foundation for them.[1] It is not any more just one or two people developing the theory.

Toward the end of the 1990s, it became clear that the world around us demands that we expand our own theory. This has to do with the fact that more and more activity systems operate in various kinds of combination partnerships, and it is less and less often fruitful to study only a single activity. That's why we're talking about the third-generation activity theory. I think that I coined that in 1995 or 1996, and after that, gradually it has become increasingly important for us to analyze two, three, or more activity systems and their interconnections. That has been a very important step and it is still going on. What is third-generation activity theory is still somewhat an open question. For me, the first generation was Vygotsky and his idea is mediated action. Then Leont'ev expanded that when he distinguished between action and activity. But it was still single activities, basically, a single activity system. The third generation sees that the minimum unit of analysis should be at least two activity systems. But at same time, we have people who have in part been impressed by the idea of third generation. For instance for Wolff-Michael Roth, third-generation activity theory seems to open up the questions of emotions and bodies. If that is the only content of the third generation, then I think it is a misunderstanding. To me, it is important to see that activity theory can respond to societal changes, at the moment especially to the processes of globalization. This means that we have to look at interconnections between multiple activity systems. On the other hand, I think it is probably a good idea to think of the third generation so that as it expands the unit of analysis, it also needs to take issues of emotions, bodies, ethics, and morals much more seriously than they have been taken before. I think it can be both, it can be a movement that expands the unit of analysis, but at same time also goes deeper into the subject.

If the third generation is understood as this kind of dual movement, then it would correspond also to the increasing interest in agency and human responsibility in recent activity-theoretical research. Those are necessary. But I think

they must be seen in connection to the expansion of the object. Unfortunately, I think it is sometimes forgotten when people get very enthusiastic about emotions and body, and identity, and ethics and morals. They should be connected to the expansion of the unit of analysis, otherwise it can easily mean simply a return to psychology.

I don't think that activity theory should be reduced to psychology. That would be a very big mistake. There is a tendency toward that, of course. Many people think of activity theory as a psychological theory. I think that is a deep misunderstanding. It is definitely a multi-disciplinary theory of humans and cultures. At the moment we are in a situation where a lot of exciting work can be done, and is done, in different parts of the world trying to expand activity theory so that it can meet the challenges of the globalizing world. That work is not at all completed or finished. It is only beginning.

Katsuhiro Yamazumi
Through your sustainable research story from research of imagination to the third generation of activity theory, I can clearly understand how you developed activity theory and also now you are continuing to generate activity theory. So although you included the current situation and the future agenda of activity theory, once again, I would like to ask, what is the future vision of activity theory or future potentialities of the theory that you are now challenging?

Yrjö Engeström
The idea of the third-generation activity theory is not the whole story. There is also, at least in my work, a very strong interest in looking at how we can actually develop activity theory to deal with activities which are very difficult to bound and stabilize to begin with. If you think of third-generation activity theory as the interaction between multiple activity systems, still it assumes that each one of those activity systems is a relatively well bounded and stable formation. But what about the emergence of all these weakly bounded web-based communities, for instance, or open-source software communities. They are very difficult to draw a boundary around, to say who is a member and who is not, because anybody can join in and anybody can also leave. There are no strict criteria for membership. It is all based on what you can contribute or what you want to contribute. There are many varieties of these, many forms of community formation, which often involve large numbers of people in various issues or objects.

For instance, in healthcare, we have this very interesting phenomenon of web-based virtual communities of patients who suffer from certain illnesses. Often also medical experts who are working on the same illnesses join those communities. Some of these are global, weakly bounded and fuzzy communities, but they still have very strong objects. If these are activity systems, how can we describe and analyze them? Can we still use same models of activity systems that we have used, or do we need other models? What are the characteristics of

this kind of formations and how do they interact with more traditional activity systems? For instance, we know that these open-source software communities nowadays, they often form all kinds of symbiotic relations with commercial companies. Sometimes, at the same time, they are almost enemies but also, they are in some sort of partnership. I have called this phenomenon amoeba-like or wildfire activities, or mycorrhizae-like activity formations which are weakly bounded and weakly institutionalized. They often have no center or it is very difficult to identify the center of these activities. All these are challenges to activity theory.

And I think that my own work will deal with this in the next few years. It will be very interesting and it also forces us to re-think our own tools and concepts, whether we can use the old ones or need to develop new ones or create new kinds of combinations. I think personally that activity theory has a lot to offer also to studies of these kinds of wildfire activities. But we need to have a very open mind and study them closely enough and carefully enough so that we are ready to develop new conceptual tools. The whole issue of the global interconnectedness of our activities is becoming the big challenge. And it is not only the Internet. The Internet is, of course, a big accelerator. But it would be a mistake to reduce the challenge to the Internet.

That is why I want to also study activities that are very physical. Take for instance the activity of birding, or as some people call it bird watching, which has existed at least a hundred years. People go out into the nature and observe birds. Of course they use nowadays the Internet very effectively. But birding existed before the internet and it is relatively independent from the Internet. It is an activity that has many of the same characteristics as many peer-to-peer activities on the Internet. It doesn't end up producing profit, it resists commercialization, yet it often creates a kind of symbiotic form because it uses new technologies. It is at the boundary of work and hobby, and it is difficult to find the center because anybody who is interested in birds can join in and just get into the movement. Somebody puts in a key web site today a message telling where an interesting bird has been seen. In a few days, maybe two hundred people around the world are coming to see this bird. It is a very interesting phenomenon and it also has important societal potential because it is connected to the issue of global ecology. Serious birders, they do a lot of work to register and record migration patterns of birds, and they're often the first ones to notice that something is changing. Some bird species are disappearing or changing their behavior and that can be an early warning, an early indication of some serious ecological change. So, these people are actually not just doing this strange hobby. They are also connected to something that has global importance. These activities are too easily dismissed as hobbies of strange people.

So, I think that the Internet is a crucial infrastructure but not a foundation. Of course, the Internet created a lot of new forms of this kind of activities and communities. But many of them have existed in some smaller forms or smaller

pockets even before it.

The other dimension or direction where I want to develop activity-theoretical research is better understanding of interventions. In activity theory, there is a strong tradition of interventions. Vygotsky's concept of double stimulation was the foundation of creating an interventionist research methodology. But there is very little analysis, very little literature on the actual theoretical and methodological bases of interventions. So this is the second thing I personally want to pursue in the next few years. This is very important also because if you look at the world of mainstream education and psychological research, there is a strong pressure to standardize the research to follow certain simple, almost positivistic rules: there have to be large statistical samples, control groups, etc. You know, the ideas that the American National Science Foundation (NSF) calls "gold standard" for research, which is extremely conservative, and practically eliminates this type of intervention research. In order to show people that formative interventions are a valid research approach, a research methodology, you have to study and carefully build and exhibit arguments that show that it is actually a good methodology. And it also about fighting this simple-minded reductionism in the methodology at the moment, which is very popular, at least in the United States and also to a certain extent in Europe. We have to fight that and show that other kinds of research can be very good and can create results which may be much more useful then than traditional research can create.

Katsuhiro Yamazumi
I am truly excited, so thank you. You talked about Vygotsky, Leont'ev, and Davydov. They are key persons in activity theory. On the other hand, in your

Learning by Expanding, you explain contradictions in processes of development from the viewpoint of Gregory Bateson's concept of the double bind. Could you tell us how Bateson has had an influence on your thought?

Yrjö Engeström

Bateson put forward a learning theory that distinguishes between primary, secondary, and tertiary learning. Because he was interested in systems theory and anthropology, he saw a sort of embeddedness—or multiple layers—in human lives, perhaps more clearly than many others. His theory of learning, Learning I, Learning II, and Learning III, is a very elegant way to start to expand your notion of learning. In other words, it doesn't deny the importance of even simple conditioning, characterized as Learning I. Conditioning happens, and it is important for us. It is a foundational process. At the same time, it would be a huge mistake to reduce human learning to conditioning. The same goes for Learning II. We learn the sort of conditions of conditioning, and we adjust to and adopt those conditions. We learn to deal with the frame within which the conditioning happens. The most radical idea, of course, is that we can all even go beyond that frame. When the frame within which we act becomes too contradictory and too oppressive, we have to break out. This breaking out is dangerous but it can be very revelatory and emancipatory. So, Learning III is breaking out into this unknown landscape, expanding the landscape, finding something beyond the given frame. It is something that I could not find in any other learning theory: that learning can be breaking out from a given frame and entering the unknown territory where you want to construct a new, wider frame.

Bateson mainly looked at it from the point of view of therapy. For him, double bind is the situation where you have to break out or you have to regress and become pathological. Double bind for him was initially a way to describe phenomena that he observed in attempts to develop family therapy or to deal with schizophrenia. But he also pointed out that it is a more general phenomenon. He even wrote about double bind as a mechanism that generates great human achievements. But he never went more deeply into that, and I think that side of Bateson, which is not looking at pathology but at potentials of expansion, it was never really picked up, curiously enough. This was mainly because those who were interested in the concept of double bind were mainly people working on therapy, they were not students of learning.

There are, of course, people who have picked up Bateson's levels of learning before me. The most well-known are Argyris and Schön, in their theory of organizational learning. But they reduced it to two levels, calling them "single loop learning" and "double loop learning." That is unfortunate because Bateson's theory is much more radical than that. Argyris and Schön's single loop learning is basically the idea that when there is a mistake or error or problem, you fix it. But you don't fix the root causes that lead to this problem. So, it is a superficial corrective loop. Double loop learning is where you also

ask: Why did this mistake happen? Why did this problem emerge? And you try to fix the causes of the problem. But still, this framework takes the activity which we are engaged in as the same, it is not radically changed. An organization can make a serious restructuring or corrective change in its policy, but the very idea of radically breaking out and opening up a new landscape of possibilities is missing in Argyris and Schön.

You need all the three levels of Bateson. The third level is very open-ended. And also the idea of double bind needs to be taken seriously. Double bind is basically a psychological interpretation of what I call secondary contradictions. A contradiction in the system of activity becomes aggravated. Double bind means that the people who experience the contradiction experience it as an impossible situation in which anything one does is wrong. It is not enough to have the psychological experience, the experiential aspect of contradictions. You also need to look at them as systemic and historical. This is something that is not in Bateson's work. He was fascinated by the idea of building up a new explanation for pathology emerging, for instance, in a family context. So Bateson's theory is not enough for a theory of expansive learning. But it is a strong springboard. It is more a set of ideas rather than a full theory, because he typically wrote relatively short essays in which he put forward ideas and then let them spread forward. But he did not pursue them systematically. So that is my take of Bateson. Of course Bateson was a very diverse thinker and writer and there is much more in his work that can be relevant and useful for activity theory. But this is my own perspective.

Katsutoshi Yamazumi
How do you think that we can reach the development of learning III, or is this a difficult question?

Yrjö Engeström
No, I think it is a very essential question and I think people are all the time trying to reach it. Because in our life, we constantly also have elements that are like double binds, the elements that make us feel that we have to break out. There is a tribulation or closure or situation that makes us very uncomfortable continuously. Too commonly various kinds of deviation, various kinds of irrational actions are in a way symptoms of attempts to reach Learning III. Much of criminality, I think, can be interpreted as attempts to break out. But that is not yet developing Learning III. It is a sort of desperate attempt to break out.

Developing Learning III as a sustainable way of transforming your life requires cultivation. The first element is that you have to accept that this must be done together. You have to have allies, to have partners, you have to do this together with others. You can learn a lot from looking at any interesting new forms of building a new institution, building a new activity.

The most crucial prerequisite is the stepwise formulation of a new object. In the end, it is not only a question of breaking out of the old object, but starting

to give shape to a new object. The new object does not immediately become clear and coherent. It's not ready made. Leont'ev wrote that when a need meets an object, it is an extraordinary act. I think that this is metaphorical language, and in reality the act is not a single act. Leont'ev himself later also talks about that. It is not just a single act. You gradually elaborate on what the new object is. For that you oftentimes need something like what I have called a "springboard" and a "microcosm." The latter is a relatively supportive or protective smaller environment where you can build the new object first in little bits like under laboratory conditions, so they will not immediately be defeated by the circumstances. You have a little bit more protective starting point and then begin to build it under real circumstances where it is often much more difficult to pursue that object.

But there is nothing particularly mysterious about Learning III. It is happening anywhere we see an interesting new activity being created. We should just go and study where that happens. There is plenty of empirical material around for that. The problem is that those processes are not often studied. Only after something becomes a successful new activity, then people start telling a story about it. But that's a little too late. How to study it is when it is actually happening? The use of literature, classical fiction, is often good at that because in a way it captures something about a process without having to tell us a success story. The novelist doesn't have to beautify the story, doesn't have to turn the story into something pleasant. So a novelist is free to put all the painful and difficult failures into it also. For that reason, I think that a good novel can give us more than a bad autobiography for instance. In an autobiography the author will tend to tell a good story about him- or herself. We want to make everything look good. That is a human tendency.

Katsutoshi Yamazumi
My next question is also about your *Learning by Expanding*. As you used Mark Twain's *Adventure of Huckleberry Finn* as a material for the analysis of contradictions, I think you require not only the social sciences, but also the humanities. Do you think that even researchers in social sciences need the humanities?

Yrjö Engeström
I think it is absolutely evident that the arts and literature, including film and many other forms of artistic expression, can often reveal to social scientists much more than our data can tell. They can guide us to crucial issues much more effectively than huge amounts of empirical data. Vygotsky, Leont'ev, and others systematically used classical Russian literature, for instance, again and again. I think it is a tremendous reservoir that should be used much more. We should build on the extraordinary observation and imaginative capacities of artists. That's one thing. Secondly, our books are often not interesting for people to read. If we could use more diverse ways of expression that are familiar to the humanities and arts we could make our work more relevant to

people outside the academia.

So, we need literature and humanities both for our own benefit, to make our research better, and also to make our communication outward better. I think that the humanities and arts are the natural ally and great source of inspiration and expressive tools. But there is too little real cross-fertilization at the moment. Production pressures on researchers tend to be such that we too easily just write in the ways we are expected to write and use the standard type of tools. But it does not have to be like that. There is a recent article by one our new PhDs, Hannele Kerosuo, in which she analyzes her own research work through her own experiences and uses her own paintings as evidence of the different steps in the work.[2] A good journal published her article, including pictures of the paintings. So, it is possible. But, of course, it is not so easy because many journals would not necessarily take that kind of manuscript at all. I think that we need to push the boundaries and open up to this direction more and more.

Katsutoshi Yamazumi

Yesterday, I read your article again called "Activity theory as a framework for analyzing and redesigning work" (2000), and reading it, I thought, it's like a short novel. For example, Section 2 starts as follows: "A junior hospital physician is taken as the starting point. He works on the urgent care unit of the outpatient clinic of the Children's Hospital. At the moment, he is reading a patient's lab test results on a computer screen. This action of reading displays the classical set-up of human–machine interaction studies: a human operator working on a machine" (p. 961). It's very interesting to me. What do you think of your writing style?

Yrjö Engeström
In that, there was a little bit of a narrative at the beginning. We should use these kinds of expression much more. I don't think that I am very good at it. I have tried to include narrative elements inside my articles, but we are not trained for that. We are not getting very much support to develop that kind of style. But in that article, at least there is an attempt. When you have difficult theoretical ideas, it is very easy to turn them into dead theory, which is out there but not connected to everyday life. To bring theory to everyday life, you have to invite readers to enter a narrative. You have to invite them to witness events in some concrete settings. But then you of course have to again distance yourself from a particular setting and abstract from it, and then go back, so there is this movement back and forth between situated narrative and a more detached conceptual presentation.

But some sort of movement is vitally important because after all, we also do want to invite practitioners, people who are not necessarily researchers, to think with the help of these concepts. There is much more that should be brought into journal articles than just narrative fragments. It is a shortcoming of our own training and our own culture, which is pretty cut and dry.

Katsutoshi Yamazumi
The last question is about new technology. Today you referred to new technology, for example, the Internet, mobile phones, e-mail, and so on. Do you think these technologies change your thought about activity theory?

Yrjö Engeström
The answer is yes and no. As I pointed out, the fact that the Internet and related technologies have so radically accelerated and amplified the processes of global interconnected activities has of course changed my thoughts. I am increasingly interested in globally interconnected activities. But that is not simply because of the technologies. It is because of processes that technologies accelerate but not because of technologies themselves as such.

I am very skeptical concerning claims which say that the Internet and digitalization are a huge revolution that changes everything, and that, for instance, the sort of semiotic virtual sphere of the Internet is now more important than any traditional activity. I am skeptical about the attitude that is quite prevalent at a moment, where so much emphasis is put into what people do virtually. I don't think that we will ever be reduced to virtual beings. The crucial issue is what we do in the web, what we do through this media. Certainly the Internet is much more than a tool. It is a pervasive infrastructure. If our main infrastructure of life has been the printed text, now it is the digital media. But if you put everything into the media you easily forget the object. And the object still remains the foundation. If you start to become completely fascinated by what the Internet can offer to you, the question is why? What are you trying to do? What is the object? What is the worthwhile object you try to pursue? So in the

end, even though the Internet makes new objects appear and provides a kind of new breeding ground, a farm for the formation of objects, for pursuing the object, I think it in no way dictates what the objects are of human activity. It is not an object in and of itself.

If digital media become objects in themselves for us, we commit the same huge mistake that we committed with the printed text. Already a couple of centuries ago educational systems turned the printed text into an object in itself, something that you have to learn, learn, learn for the sake of the text. We cannot make the same mistake with the Internet and digital media. We should not just become inhabitants of the Internet, never asking what we are trying to achieve with it? So, this displacement or confusion between the media and the object is something that I personally want to criticize.

Therefore, the answer is yes and no. The answer is that yes, digital technology, particularly Internet-related phenomena, have certainly changed my thinking in terms of trying to understand the acceleration of global interconnectedness. At the same time, perhaps more than ever before, I think that we are at risk of confusing between the media and the object.

Katsuhiro Yamazumi
I'd like to ask a very last question for you. I have received a deep sense of encouragement from you as a leading light for me for over ten years. So, what do you think about how the mission of academics in the field of research on human potentialities differs from that of practitioners in their everyday work? And also what is your thought about our joy and happiness in continuing to develop our own research activity?

Yrjö Engeström
Those are most difficult questions.

Katsuhiro Yamazumi
These are optional questions.

Yrjö Engeström
I'm afraid that I don't have a kind of an easy way to answer. So, I can just say a couple of fragments. I see the role of academics as mediators. We can bring together worlds that tend to exist separately, and by bringing them together we can open up possibilities for very good new hybrids to emerge. I think of the role of an academic as a bridge builder or mediator between different activities, practical activities, schools, the university, but also possibly creating entirely new activities that are in between the existing ones.

Your own work, for instance with the New School,[3] is just this type of work. And I think that you also have experienced a lot of joy when you bring these differences together, and people come together and something unexpected can emerge. I think those are after all the moments of great satisfaction for us and

for them, potentially at least.

But of course, that's not enough. You have to also provide interpretations and intellectual tools for yourselves and for the people you work with, to actually understand and develop their activities further. Because if you are only a mediator and bridge builder, the question is, what remains, what can stabilize, what kind of stable new steps can be taken so that it will not be just fleeting moments. This increases the importance of our very basic things like publications and other forms of relatively durable interpretations of what we find.

So you have to have time to write and publish. Ideas need to be turned into a form that can be communicated to people, that can be shared and used. And at same time you have to do this very practical work of bringing worlds together in practical situations and practical interventions. You will never reach a balance, you always have to work with a contradiction.

We should not think that we have monopoly of the tools, some sort of superior access to deep knowledge. But we do have a particular mediator role in the society that we should explore. We have more possibilities for that than perhaps any other profession.

Universities are, after all, institutions for that kind of interconnection. You have to find those activities, those contexts where you can do this without running around everywhere all the time, without killing yourself in a sense. For our happiness, it is very important that we build something over time without spreading ourselves everywhere. Something that can last longer and create also perhaps longer term friendships. They, I think, give us a lot. I can't answer it better.

Katsuhiro Yamazumi

I have been inspired by not only your theory, but also, I have learned a lot from you about the way of life as an academic. Your activity theory and its practical methodology have very much influenced a lot of researchers in our field all over the world, a lot. For example, if we use an academic journal database, and if we search for "activity theory," "learning by expanding," and "Engeström," so many many studies and articles can be found. Your activity theory and its practical methodology is powerful, going beyond the boundary of a specific region, country, and specific area of discipline. So, what is the reason, what do you think the reason is for such a kind of power to go beyond the limited boundary of research activity in the world?

Yrjö Engeström

I don't know any single explanation. Maybe one simple thing is that you just have to be pretty persistent—it takes time. After all, *Learning by Expanding* was published 20 years ago. So it has had time to spread. That's one thing.

Besides persistence, not limiting myself to just one single discipline was also important. It is always a challenge if you have a chance to go to conference, or write in a journal of a different discipline, and try to learn how to communicate

within a different discipline. Of course, the risk is becoming a dilettant in everything. The history of activity theory is basically multi-disciplinary. Vygotsky was originally not psychologist at all; he was a literary scholar. Luria became a medical doctor, and so on so. There is all the time sideways movement from one discipline to another. And this sideways movement should be cultivated and nourished. There is no reason to confine oneself into one discipline alone. You can start building your scholarship as an artist. This means that you find unexpected support from places where you did not necessarily try to put so much effort. If you build an alliance, often things start to spread without you knowing it.

I think that is the solution after all: that you don't try to control this process but you just keep your eyes open and be interested in what other people are doing. If you hear that they are thinking about something similar or being interested, engage them in conversation and exchange, and very soon you realize that they actually start using your ideas. That's probably the best. And you show that you yourself are interested to learn from others, being very modest about our own ideas. If you are modest about ideas, our ideas, then other people will advertise them. We don't have to advertise them ourselves.

Modesty and humility, that we are humble about our own work, is very crucial. Humility, this is something that many Americans don't understand. They want to make their own thinking very quickly something like the center of the world. Maybe here in Finland it is little bit different. We don't find it very appropriate to advertise ourselves. It is better that others find what we do useful and they advertise it, rather than me telling everybody I'm great. And I think Japanese culture is little bit similar in putting a lot of emphasis on humility. If you don't expect anything, you can't be disappointed. Just be interested in what others do when you offer your own ideas. That way, they spread it.

Notes

1 By the beginning of 2024, the doctoral program of the Center for Activity Theory and Developmental Work Research, now the Center for Research on Activity, Development and Learning CRADLE, had produced 48 PhD dissertations, all available as printed and electronic books.

2 Kerosuo, H. (2007). Following my traces: Exploring the emotional engagement with the research subject through the researcher's artwork. *Culture and Organization, 13*(1), 55–72.

3 See:
- Yamazumi, K. (2010). Schools that contribute to community revitalization. In K. Yamazumi (Ed.), *Activity theory and fostering learning: Developmental interventions in education and work* (pp. 133–160). Suita, Osaka: Center for Human Activity Theory, Kansai University.
- Yamazumi, K. (2013). Beyond traditional school learning: Fostering agency and collective creativity in hybrid educational activities. In A. Sannino, & V. Ellis (Eds.), *Learning and collective creativity: Activity-theoretical and sociocultural studies* (pp. 61–76). New York: Routledge.
- Yamazumi, K. (2021). *Activity theory and collaborative intervention in education: Expanding learning in Japanese schools and communities.* London: Routledge.