
OUTLINES - CRITICAL PRACTICE STUDIES

• Vol. 15, No. 3 • 2014 • (54-78) •
<http://www.outlines.dk>

Experiencing (Pereživanie) as Developmental Category: Learning from a Fisherman who is Becoming (as) a Teacher-in-a-Village-School

Thurídur Jóhannsdóttir

Department of Teacher Education, University of Iceland
Reykjavík, Iceland

Wolff-Michael Roth

Department of Curriculum and Instruction, University of Victoria
Greater Victoria, British Columbia, Canada

Abstract

In this study, we take up L. S. Vygotsky's challenge to study learning and development in terms of categories, irreducible units that preserve the characteristics of the whole (society). One such category (unit) is experiencing [pereživanie], a process that integrates over the relation of person and environment. Using a case study from Iceland, we theorize the process of "becoming as a teacher-in-a-village school" in terms of experiencing [pereživanie]. The case describes a stage of development in the life of a person who becomes a teacher and then experiences a developmental trajectory very different from his previous life as a fisherman. This is an aspect of teacher education that is hardly (if ever) described in the teacher education literature which tend to be concerned with events after a person has entered a professional program or after a person has begun teaching. We discuss the implications of taking experiencing [pereživanie] as the developmental unit for theory and the practice of teacher education and development.

Introduction

Learning and development—such as how someone becomes a teacher and develops (i.e., *is becoming*) while taking courses or teaches—tend to be theorized with the individual as

the unit of analysis.¹ This is so even in those cases, where researchers recognize the role of others. But then such research turns to concepts such as internalization and the individual construction of knowledge. This does not appear to be in the spirit of L. S. Vygotsky, however, who, in proposing “experiencing [pereživanie]” as a *category*, that is, as the developmental *unit*, keeps the environment in continual focus: “*Experiencing [pereživanie] is that unit where, in an irreducible form, is represented, on the one hand, the environment—experiencing always refers to something that is outside of the person—and, on the other hand, how I experience it*” (Vygotskij, 2001, p. 75, original emphasis, underline added). As one interpreter of Vygotsky’s work on categories and unit analysis suggests, the category experiencing “has to be the unit of analysis of consciousness” (Veresov, 2010, p. 274). There are radical consequences for thinking about development when such a unit is chosen (seriously) for studying teaching.

The purpose of this study is to make a case for experiencing [pereživanie], as defined, and to exemplify the use of this category in the case of “*becoming (as) a teacher-in-a-village-school.*” The first part of the foregoing expression focuses on development including qualitative and quantitative (continuous) transitions (i.e., first becoming a teacher and then developing as a teacher). The second part of the expression highlights the fact that experiencing [pereživanie] cannot be broken down into elements—person + environment—but constitutes a continuously unfolding process that simultaneously designates the movement from person to environment and from environment to the person. The person, however, is “the ensemble of societal relations [sobokupnost’ vsex obščestvennyx otnošenij]” that come to be “*shifted to the inner sphere and having become functions of the personality and forms of its structure*” (Vygotskij, 2005, p. 1023, original emphasis, underline added). It has been suggested, therefore, to study everyday learning and development in terms of the “fullness of life as minimal unit” (Roth & van Eijck, 2010). In this study, we understand *person* (personality) and *experiencing [pereživanie]* as categories, analytic units, that retain the characteristics of the whole, which—for Vygotsky as for all Marxist theories—is *society*, the relations that sustain it, and their development.

To make our case we begin by describing a stage of development in the life of a person who becomes a teacher and then experiences a developmental trajectory very different from his previous life. This is an aspect of teacher education that is hardly (if ever) described in the teacher education literature concerned as it is with events *after* a person has entered a professional program or after a person has begun teaching. We then provide a brief review of teacher education from a cultural-historical activity theory perspective before outlining in which way experiencing [pereživanie] constitutes a useful category (analytic unit) for theorizing both continuity (e.g., within the life as a fisherman or a teacher) and discontinuity (e.g., the change in developmental trajectories when one life form, being a fisherman, is changed for another, being a teacher). We conclude this essay with comments concerning (a) a radical commitment to unit analysis and (b) teacher education.

¹ In this study, we are committed to *unit* analysis, which means, the fact that no part of a unit can be thought as something that can be understood independently of other parts (Vygotskij, 2005). Although Vygotsky suggests that psychological functions and personality can be understood only in terms of societal relations in which persons participate, the education literature tends to treat individuals as independent elements of society.

Becoming as an Inhabitant-of-a-Fishing-Village

Empirical background

We begin to make our case by reporting the results of an ethnographic study of a fisherman (Sam) who first becomes and then develops as a teacher. Sam had earned a living in fisheries, but who has turned to teaching and then enrolled in a teacher education program to obtain certification. (Pseudonyms used throughout.) The study was conducted in the coastal village of Creek in rural Iceland. The empirical data on which our narrative is based was assembled over a three-year period while following Sam—as well as two other new teachers—through his first few years of teaching (Jóhannsdóttir, 2010b). The data pertinent to the present study include interviews (with Sam, his supervisors), classroom observations, and ethnographic fieldwork in the village and school district. Further data pertain to the interplay between the schools involved and a teacher education program run by means of distance learning. Sam's participation in the program was researched by analyzing transcripts of online courses in which he was enrolled as well as observations carried out during on-campus sessions. This program provided already practicing teachers the opportunity to gain formal certification while continuing to teach. The fieldwork entailed five visits to the district, each lasting several days, and included observations in schools and in/formal talks in staff rooms and with individuals involved in distance education and school development. Further formal and informal face-to-face meetings with Sam occurred while he attended on-campus sessions of the teacher education program. Finally, the first author observed Sam while he taught, as a requirement of his program, in another district. The second author had been a teacher in an isolated fishing village in Canada of about the same size for a period of 2 years, where material and historical transformations in the 20th century were not unlike those observed in Creek Village—were it not for the moratorium on cod fishing in 1992 and the inexistence of other work. More than half of the 12–13 teachers had been locals who had obtained teaching certification to be able to stay in the village but making a living apart from fishing.

We start by accounting for the real conditions of Sam and environmental conditions that had preceded and set up the change into teaching and, thereby, led to a qualitative change in the continuity of experiencing [pereživanie]. Our unit is “Sam-becoming-in-the-village,” because, for example, the fact of the observed changeover from Sam-in-the-fisheries to Sam-in-teaching is not just the result of inner, personality characteristics. There were real, objective (because collective) conditions that integral parts of the overall development. For example, in Sam's lifetime, there have been considerable, cultural-historical changes in the fisheries industry (from small boats to large vessels, an increasing population migration that have brought cheap labor from East European countries, and a cultural context that increasingly privileged formal education (in the past, many fishermen in Iceland as elsewhere had very little formal education). That is, besides being the *subject of experiencing*, Sam also is *subject to* and *subjected to* the experiencing (making a) living in a fishing village. The trajectory and processes that we describe here, involving that of becoming a teacher and becoming (developing) as a teacher can be understood only as a

transaction² of personal and environmental moments. In the latter parts of this paper, we suggest that the category experiencing [pereživanie] capture this transactional aspect in and of the following ethnographic description. With Vygotsky, we understand experiencing as including the subject, environment, and affect. We describe the historical unfolding of events, in terms of changes in village, then one part of it, the school, and then Sam. That is, the following allows us to articulate an account, consistent with other accounts of the historical practice of persons (Holland & Lave, 2009), in which the biography of an individual plays itself out in the unfolding history of the fishing village in which Sam lives. Our account documents the continued struggles for both the village as a whole and for Sam, in his attempt to stay and contribute to its and his own survival of this traditional mode of life in rural Iceland. By keeping individuality in focus in the context of what is a cultural-historical account, our work is consistent with the call for the employment of dialectical theory and transformative activist stance³ (Schraube & Osterkamp, 2013; Stetsenko, 2013). When we use terms such as “Creek Village” or “Sam,” then we understand these as denoting parts of a whole, “Sam-in-Creek-Village,” which is short for “Sam-becoming-in-Creek-Village”; these parts cannot be understood on their own but only in relation to all other parts and the whole. Adjectives such as “internal” and “external” point to different parts of the unit where changes are observable; and it is precisely when inner contradictions in the unit become evident that overall changes announce themselves (Holzkamp, 1983).

Creek Village

Creek is a typical small Icelandic fishing village of around 300 inhabitants where the fishing industry has been the main *raison d'être*. In Iceland there was an upswing in fisheries during the second half of the 1900s, when the fishing fleet was industrialized and freezing plants were built in the towns and villages along the coast. At that time the number of inhabitants went up to around 500 and Creek prospered economically. In the late 1990s a recession led to the main fishing companies being shut down; and many people left as a result. Around the year 2000, there had been a lot of demographic changes with people moving from the village both because of difficult situation due to economic instability and also because of the harsh natural conditions. Fisheries had been the main resource on which the economy was based but changes in regulations on fisheries and international markets had changed the circumstances making it more difficult for the small fishing industry enterprises in the villages to sustain.

² In this text, we use the term transaction to denote a relation in which the parts cannot be understood independently (Dewey & Bentley, 1949/1999). Thus, *interaction* involves two or more entities (individuals, things) that relate to each other while leaving intact the nature of each entity—e.g., like elements held together by a force external to them. The specific character of a *transaction* lies in the fact that the parts of a relation (e.g., individuals, things) cannot be understood independently because the definition of any one part includes all other parts.

³ Anna Stetsenko who proposed the term *transformative activist stance* defines its meaning as follows: „This approach outlines the subtle dialectics of individual and collective planes of human praxis whereby each individual is shaped by collective history and collaborative practices while at the same time shaping and real-izing them through contributing to their collective, dynamic materiality in moving beyond the status quo.“ (Stetsenko, 2013, p. 7)

The village is a part of larger municipality including one town of around 3,000 inhabitants and three villages similar to Creek. During the time of the fieldwork for this study, the decrease in the population had been a problem in the district and people worried if their community would be able to survive. While the Icelandic population had been diminishing, immigrants, however, had moved to the district mainly to work in the fish factories. Thus, in 2004 between 30 and 40% of inhabitants were immigrants. At that time, most were of Polish and Filipino origin, but some had come from Thailand and Russia. Tourism was becoming increasingly important. But the Icelandic climate makes tourism feasible mainly during the summer. There are many indicators of the fact that Creek Village, as many Icelandic communities, was struggling for its survival.

Sam-in-Creek-Village

Here we describe Sam's life in the village before he took up teaching. This is important because a fuller account of development needs to include descriptions and explanations of those critical periods in a human life where one developmental trajectory (e.g., becoming as a fisherman) comes to be replaced by another (e.g., becoming as a teacher). Sam had always been involved in all kinds of activities in the village. He had worked in the fisheries as a land-based worker and as a seaman. After those kinds of jobs he had studied fishery technology and finished a diploma in late 1980s. Then he ran a small enterprise—owning and operating boats and operating a small fish factory. However, the external conditions changed due to altered regulations on the fisheries industry (a political decision) rather than due to a lack of fish. The altered regulations shifted fishing quota from the small towns to bigger operators. For Sam and his family, this potentially meant insecurity, loss of control over their life conditions, and, therefore, a potential threat to their livelihood. Simultaneously, there existed a lack of qualified teachers to teach in the local school. On a personal side of our narrative, we know that Sam was an educated and experienced person. Sam had often been in jobs that resembled teaching. He had been a caretaker in the swimming pool for several years and he sometimes stepped in as a substitute, teaching athletics (sport), chess, and other subject areas. This created a new opportunity that for Sam existed alongside his then-current dominant means of fishing-related activities to secure an income. Sam wanted to stay in the village. There was therefore an inner contradiction between the threats to livelihood that arose from the external conditions; simultaneously, there existed, as both external and internal conditions, the possibility and capacity for teaching. The decision to move from fishing to teaching—i.e., the shift in the dominance of the means for securing an income—therefore constituted a *qualitative* shift in the experiential continuum.⁴ In the second part of our narrative (next section), we describe the new direction of the developmental trajectory that came about with the change in the newly dominant form of experiencing. The narrative unfolds how teaching becomes a possibility and eventually led to first form of qualitative shift in the development of Sam-in-the-village.

Sam considered teaching as something different from what he had been doing, though “maybe not as wet,” as he put it: “Honestly, if I’m going to keep living here, I have no interest whatsoever in working in the blood and gore; the fishing or baiting. That time has passed I am done with my quota there.” His affection for the village was an important

⁴ For Dewey, there is a difference between experience, which spans the whole life, and *an* experience, which refers to a salient aspect in the experiential continuum (Roth & Jornet, 2014).

issue together with material interests connected to his assets in the village: “I live here and I am tied with housing and other things so that also counts, self-interests and the feelings towards the place.” Together with his family, he had run a small enterprise in the village during the summer, a boat rental shop inviting rowing on the fjord as well as accommodation for tourists in several apartments. His wife owned a handicraft workshop and sold handmade things to tourists. These circumstances made teaching a viable possibility when Sam had to find new ways of staying in the village at a time when working in the fisheries no longer was a feasible option. Being a teacher in the winter and serving tourists in the summer when the schools are closed work well together to earn a decent living.

Sam had always been an important figure in the social life in the community. As a chairman of the sports club for many years he has organized events especially with the younger generation as well as being a prime mover in preparing entertainments and festivals of all kinds. He used to participate in preparing the traditional winter festival held in February, where traditional Icelandic food is served and where there is a lot of singing and dancing. An important part of the festival is the production of the annals of the villagers’ life, which involves telling jokes and making fun of events and people. These were composed in the form of verses or rhymes making jokes based on events in the village during the last year. Sam had usually an important role both in organizing the festival, contributing to composing annals and rhymes and last but not least performing. He was singing the poems and was an actor if they had composed plays, prepared to play the clown some times by frowning while imitating some known characters in Iceland or in the district.

Sam’s decision to change directions in his life and become a teacher is a reflection of personal characteristics in relation to objective changes in the environment: the village. We see how the previously dominant form of experiencing, making a living in the fisheries, is present when he describes his reasons for choosing the teacher profession. He uses vernacular from the language of seamen to mark the end of what will be his pre-teacher life: “done with my quota in the blood and gore.” The change of experiencing from fishing to teaching reflects a first qualitative change in development; and Sam’s talk is a sign of change in personal characteristics as a reflection of changes in environmental characteristics. It also becomes evident how being a villager and fighting for the survival of the community was associated with a self-interest in making a living come together in the turnover from fishing to teaching as the dominant experiential context. An explanation of the changeover cannot be found merely by studying Sam. Rather, it is most parsimoniously understood in terms of the irreducible *Sam-in-the-village* unit. The changes in the village and changes in Sam are dialectically interconnected: contradictions between the two therefore would be *inner contradictions* of the unit, experiencing. Becoming a teacher is but a part of Sam’s life and his development into teaching has to be understood in the broad perspective of all the other things Sam is doing as well as in previous forms of experiencing he has undergone.

Becoming (as) a Teaching-Inhabitant-of-a-Fishing-Village

The turn to teaching meant a qualitative change in the life of Sam and, as we suggest below, in the analytic unit that we denote here by the term the-whole-Sam-in-the-village

and that we call more abstractly below experiencing [pereživanie]. In this section we describe Sam both as subject of and subject/subjected to the qualitatively new form of experiencing. That is, we describe the new direction in the developmental trajectory following the becoming dominant of the new, emergent form of experiencing: teaching. In this unit, the practical (i.e., teaching practice), intellectual, and affective dimensions are but different ways in which experiencing manifests itself. That is, teaching is not just understood in terms of practices that are somehow embodied in and by Sam, but as the-whole-Sam-in-the-school transactions that are integral and irreducible part of the-whole-Sam-in-the-village, the fullness of living life, and the entire, yet-to-be-completed totality of Sam's life. If we are to understand development in teaching as part of his development as a person in society, analysis cannot be restricted to Sam's participation in schooling activity or in the teacher education program. Taking experiencing as our unit, which is part of a *continuum of experiences* (Dewey, 1938/2008b), will make it possible to provide a holistic perspective on the development of teaching in terms of an irreducible unit: the whole-person-in-dialectical-transaction-with-the-changing-environment.

Creek School

In Creek Village, we find a school where children and teenagers from 6 to 16 years of age complete their compulsory education. During the 2004–2006 period, a decreasing enrolment between 30 and 40 students was observed. During Creek's prosperous years, there had been around 100 students. The teaching staff had been very unstable with lots of turnovers; and each year during the study period a new principal led the school. The number of teachers varied from five to seven, not all employed full-time. Sometimes two, sometimes three of the teachers were new teachers, who tended to be enrolled in a distance teacher education program. In Iceland, because of lack of teachers in rural schools, individuals often begin to teach prior to obtaining teaching degrees. Both demographic changes and lack of qualified teachers made it difficult to run a conventional school practice.

Teaching was planned in three or four multi-age classes with about 10–12 and sometimes fewer pupils per class. As a rule, a teacher would teach two or three age levels in one class and have sole responsibility. No specialized staff besides teachers were working in the school and special needs were serviced by counselors from the school office in the biggest town of the municipality. During Sam's first few years of teaching, the school situation was critical. Problems with school management and a lack of certified teachers made it difficult to meet the challenges of the demographic changes in the village, especially the large number of immigrants who did not speak Icelandic. However, our observations suggest that the school atmosphere was welcoming. The words and actions of its staff reflected a concern for the pupils' wellbeing. Interviews with the municipality's school supervisor confirmed that the pupils felt good. But she also expressed some serious concerns about the school situation. She articulated the hope that an upcoming hiring of yet another new principal would improve the situation.

The situation of Creek Village School and the difficulties its teachers were facing were a reflection of the changing societal-historical circumstances in the village. These circumstances constitute the environmental conditions and characteristics of experiential possibilities. We suggest that any study of teacher development situation has to include such circumstances *within* the minimal unit of analysis: the-whole-Sam-in-the-school-in-the-village.

Teaching and Enrolling in Teacher Education

In this section we exhibit the emergence and evolution of qualitatively new forms of experiencing, here Sam-becoming-as-a-teacher-in-the-village school and enrolled in teacher certification via distance education. The narrative unfolds the way in which the new form of experiencing exists next to the previously dominant form and how the new form of experiencing brings about second qualitative changes in the development of *Sam-becoming-in-the-school-in-the-village*. Contradictions inherent in this unit can be understood as manifestations of the moving forces in observed changes and developments. We therefore identify inner contradictions for the purpose of uncovering the developmental trajectories and emerging directions. We use four examples of Sam in different settings for revealing the development of the irreducible unit of Sam-in-setting.

Sam-as-a-Teacher-in-Creek-Village-School

Sam taught in the upper primary with two or three age grades jointly in one class of 10 to 12 students. At times, about half of the pupils in Sam's class were immigrant children. Whereas some immigrants settled, others were coming and going depending on the availability of work. The class composition therefore changed continuously. Moreover, many immigrant children were not proficient in the Icelandic language but were required to attend school in this language, creating a logical contradiction. Thus, in the case of a Polish girl, who only had very limited competencies with Icelandic, she got to write in her native tongue: "I let her write in Polish when she can't follow the class, or do what has been planned" (Sam). To understand this development, we must not just focus on what might be attributed to Sam. Rather, what Sam might have said to the girl is in response to the conditions external to Sam that determined the changes in classroom processes from Icelandic to Polish.

Other ways of addressing the contradictions arising from for the differences between language of instruction and language competencies were (partially) resolved in invitations to pupils to enjoy social life. Sam, drawing on forms of experiencing lived while being entertainer in the village, acted out situations such that these could be understood and enjoyed independent of language competencies. He made the students laugh and enjoy themselves. Drawing on the forms of experiencing related to the teacher education program, Sam found pedagogical reasons for this way of responding to the contradictory situation.

Although there was a qualitative changeover in Sam's life when the dominant form of making a living became teaching, there was also continuity with the previous form. Thus, Sam mobilized being familiar with working in the fisheries to inform his curriculum: "Last year we went to the fish market and got a lecture where this guy told us all about how things were done, the processing of the fish. I could show you the portfolio we did about the seamanship and the visit to the fish market" (Sam). The curriculum unit allowed the village students to learn and learn about something salient in their lives. According to his own account, the curricular idea was grounded in being a villager and participant in the fishing industry rather than in what he had learned as part of the teacher education program. He also invited students to express themselves in ways that did not require language proficiencies, such as making documentary films about village life.

The data discussed below reveals that in the development of the Sam-as-a-teacher-in-the-village-school unit, previous and concurrent forms of experience (fisheries, village

resident) were of greater importance than the concurrent form of experiencing in the teacher education program. However, there were also times when the latter form of experiencing provided a form of second stimulation (Engeström, 2007; Vygotskij, 2005) when Sam discovered (theoretical, pedagogical) reasons that supported his actions⁵. He used his studies to justify the way in which he transforms earlier forms of experiencing to make it work in teaching. By accounting for Sam in his village as our unit, we observe continuity across the observed qualitative changes: What remains in focus is Sam the villager as a whole person at a particular point in his life span. This allows us to better appreciate the dialectical, transactional processes of becoming (as) a teacher in the specific setting.

Sam-as-Teaching-Intern

In the preceding subsection, we observe Sam teaching in the very setting where he had taught prior to enrolling in the teacher education program. Important for understanding and theorizing developmental changes is the fact that we first observe a turnover between dominant forms of experiencing and enrolment in a certification program occurring only subsequently. This enrolment can be understood as form of expansive learning (Holzkamp, 1993), whereby engagement in this form of activity increases the subject's control over conditions and action potential. In the compulsory assignments, such as an internship in a different school, we also observe continuity between forms of experiencing prior to becoming a teacher.

Sam was teaching in a near-by town. With his presence in the classroom led by his mentor teacher, experiencing changed. Sam drew on being a village entertainer to stimulate the events in his host classroom. He composed entertaining stories and read them accompanied by facial and bodily gestures. In one situation, after failing to locate a suitable text, Sam composed a story and read it aloud for the students. "We had a theme project in life skills studies and spent many days on the school library to try to find material that could be used. I never found anything that I liked so I composed a story of a family and kept on while I was there adding to it. It was enjoyable and the students could discuss what happened and how they would have done differently and think about what would happen in next chapter—which sometimes could be an incentive for how I proceeded." In the end, as a way of saying goodbye and as an expression of caring, Sam composed a verse for each student and read all verses aloud. Students received copies of their verse at the end of the final lesson.

In Sam's consciousness, the form of experiencing was reflected in this way: "We did more of letting them talk and perform; apparently they were not used to do much of that. Actually, it surprised the teacher how they opened up some of them who had been shy." According to the mentor teacher, Sam's presence changed the way she thought about the importance of letting student express themselves in front of the class and that she would take up that sort of practice more in the future. Sam's commentary also points to the affective dimension of experiencing. Sam did his part in the joint production of a caring

⁵ Vygotsky developed the *functional method of double stimulation*, where a mediating tool is made available to people dealing with problematic situations, with the aim of enhancing agency and self-regulation of subjects (Vygotsky, 1978, p. 74).

relation. The children had enjoyed themselves during his stay, Sam had enjoyed what had emerged, and the mentor teacher was pleased.

Sam-as Student-in-Teacher-Education-via-Distance-Education

The enrolment in the teacher education program via distance education also contributed to the development of Sam-as-a-teacher-in-the-village-school. This enrolment functioned as a second stimulation, accompanying the stimulation that occurred within the form of experiencing [pereživanie] constituted by teaching. That is, to understand the events in the context of schooling, we have to include Sam in our unit, including other forms of concurrent activities including enrolment in teacher education in addition to all other activities (entertainer, business person, family member). Sam described the online collaboration with teacher education students from different districts around Iceland on different kinds of assignments. The assignment asked the students to justify the existence of small (village) schools. The topic interested Sam, who explained that “it concerned me in the way that I am dealing with that kind of situation, a small school and the debate around it”; and he continued by saying, “as a matter of fact I have been participating in this debate for a long time and the readings sharpens a lot, many new articles by experts.” This assignment had expanded Sam’s range of available actions, for it had led to an increase in his potential to participate in the debate about the existence of small school in his district. That is, although there already existed an interest in the problematic, incremental development was observable and has been experienced as an expansion of possibilities. It constituted what has been called expansive learning (Holzkamp, 1993).

Much more than enhancing his teaching skills, Sam felt that the enrolment in the teacher education program led to developments related to school political matters. The development also was noted on the part of others. Thus, the school supervisor of the municipality said that Sam had progressed a lot in the course of his first year of enrolment. Initially she had felt him to be unprofessional and pursuing his personal interests. As an example of the development she observed, the supervisor cited Sam’s taking on more responsibilities. For example, she said: “We had a workshop this spring concerning sex education and drug prevention where all the small schools in the area gathered for a whole day and planned teaching for pupils of age 13 to 16. On the occasion I gave Sam a specific role and I was really hesitating at times, thinking that he would not handle it the way I wanted him to—but then it turned out that he did an excellent job.”

Manifested Contradictions

Unit analysis does not imply that the subject of activity can be studied only as subject and subjected to activity. Rather, a specifically human characteristic is the ability to envision, based on past experiences, the world differently than it currently is. In such a process, a contradiction appears in consciousness between what is and what could be. Such a contradiction may be a driver of individual action, though it never ever is the sole determinant of a movement of experiencing, because the latter always is the result of person-environment transactions.

Some of the contradictions arose from being enrolled in the teacher education program. For example, the teacher education program also focused on student evaluation. But Sam felt evaluation to be a most difficult task. “Sometimes I could not explain why this one get this grade and the other get another grade. . . . I just will have to sit down and study a little more. I have not prioritized that issue.” Despite his regrets about neglecting student

assessment, Sam explained why evaluation was not on his preferences list. “I don’t know. I think you can’t measure it from day to day or from month to month. It is something that the subconscious mediates without you knowing it. It is exactly the same with the kids. People keep saying that you have to be able to measure in the spring how much you have progressed. I just don’t agree.” Sam felt that his thoughts on this matter had been supported in the teacher education program as well as in other contexts. “My brother used to be a principal here for five or six years and I told him last autumn when I had been teaching for few months that I worried that the students were not progressing and then he said, ‘You don’t see that maybe not until in twenty or thirty years.’ And I think he is right in a way; that’s my opinion.” When thinking about development in the Sam-teaching-in-the-village-school unit in response to contradictions in this multicultural classroom we appreciate the reasons for not prioritizing student assessment. Sam knew that as a professional teacher he was supposed to take care of student evaluation for meeting conventional prescribed standards. However, his situation in Creek School was not conventional and his teaching was in response to the situation in the school in the village.

Another instance that shows Sam acting in the face of the manifest contradictions that appeared in the context of home-school cooperation. He remembered the time when he was a parent with children attending Creek School and while his brother was a principal. At that time, home-school cooperation worked. There were meetings held at the school where parents would come to learn about different things of interest for upbringing and schoolwork. But at the time Sam entered teaching, the cooperation with home and parents “was terrible.” The previously existing meetings no longer were held, and parents failed to notify the school when their children were sick and could not attend school. Moreover, immigrant families often allowed their teenage children to work to contribute to making a living rather than to attend school. Difficulties arose especially from the fact that many immigrants did not speak Icelandic, and teachers and school officials did not speak the native languages of the immigrants. But the Icelandic families as well had been less enthusiastic about schooling than they were before, contributing to the lack of school-home cooperation.

These examples show that contradictions were present in Sam’s awareness, which in fact is a manifestation of the contradictions. However, such contradictions do not inherently lead to change. In fact, such contradictions have been described as buds or shoots of possible futures that can be identified as tools or mental models found in actions and object units of the activity (Engeström, 1993). In part, this is due to the fact that Sam is only part of the analytic unit and developments in/of this unit cannot be reduced to the intentions one or more agential subjects might have. The subject also is subject and subjected to conditions so that contradictions need to be understood in terms of the unit. That there was little if any movement concerning the contradictions, therefore, cannot be reduced to a personal characteristic (intention, motivation, belief) of Sam.

Teacher Education from the Perspective of Cultural-Historical Activity Theory

In the preceding two sections, we describe the dialectic of continuities and discontinuities in the life of a person who, after spending much of his life as a fisherman, becomes a teacher and, as such, undergoes new forms of development. These changes in the life of

the individual are integrally tied to the historical changes of the village in which he lives and to the life of which he contributes. Our account thereby situates becoming (as) a teacher in a broader context both with respect to the history of the setting and the entire biography of the individual. Studies in teacher education, on the other hand, tend to focus on individuals, who have already entered some program that intertwines academic studies and practice/internship teaching. Social and socio-cultural learning theories have focused attention on apparent boundaries that exist between formal course work (theory) and the school-based teaching (practice). In cultural-historical activity theory, such boundaries are understood in terms of the different forms of activity in which those who become teachers participate: diploma-producing tertiary education programs and classroom teaching. Existing studies point us to the importance of individual and system level interaction in teacher learning and development as well as to school-university interactions where the theory-practice abyss tends to be salient and framed as problematic. In this section, we exhibit the literature on teacher education from a cultural-historical activity theoretic perspective and then articulate and explicate the category of experiencing [pereživanie] for analyzing learning and development in terms of the whole person-in-setting along the lifespan.

There has been an exponential increase of interest in cultural-historical activity theory for understanding processes internal to education and educational activity systems (Roth, 2004). Cultural-historical activity theory has been used in research in teacher education to overcome the individualistic view of teacher learning by focusing attention to the importance of the subject as constitutive part of whole activities (Edwards, Gilroy, & Hartley, 2002; Roth & Tobin, 2002). The theory emphasizes how affordances for actions are distributed differentially across the activity systems involved in teacher education, such as schools and classrooms. The theory thereby makes scholars aware of how learners in different settings have different opportunities for actions. Thus, the theory allows the identification of naturally occurring practices in activities and the mutual relationship between individual and collective agency and the structure of the activities (Jahreie & Ottesen, 2010). By exploring how institutional aspects—e.g., tools, rules, and division of labor—are part of student teachers' talk and action these authors reveal how differently constructed settings in teacher education affect the possibilities for student learning. The structure-emphasizing, triangular model of activity systems has been used in research of this kind for analyzing important factors that have to be taken into consideration when studying individual or collective interaction with systemic characteristics of the activities in which they participate (Douglas, 2010). Studies of this kind highlight the importance of the social situation for the learning of aspiring teachers, who are conceived as participants in activity systems that may be part of the organization of teacher education or specially constructed by way of interventions to enhance learning. The latter is the case in developmental research projects that describe interventions where activities are constructed for enhancing development (Ellis, 2010; Sannino, 2010).

When learning occurs in situations that involve two activity systems—e.g., programs that involve formal school and informal workplace settings or university-based reflection on school-based practice—these interacting systems may be chosen as the analytic unit (Engeström, 2001; Roth, Tobin, Zimmermann, Bryant, & Davis, 2002). This choice affords the analysis of student teachers' trajectories in terms of the boundary crossing between school internship and university (Max, 2010; Tsui & Law, 2007). The strengths of this approach, which enables the analysis of the interplay of individual and system

development and boundary crossing between systems, have also been shown in an analysis of school-university partnerships as a form for teacher education (Edwards & Mutton, 2007). *Developmental work research* focuses on constructing boundary zone activities—i.e., new forms of activities organized outside or on the boundaries of conventional organizational activities—as learning spaces for enhancing development of both individuals, collectives of professionals and students, and the systems involved in teacher education (Konkola, Lambert, Tuomi-Gröhn, & Ludvigsen, 2007; Lambert, 2003).

Cultural-historical activity theory frequently is used to theorize change in terms of an expansive learning cycle, which can be used for following trajectories of individual and collective learning and development as interacting with system development (Engeström, 2001). For example, one study used the cycle for analyzing teacher development when new teachers were teaching while enrolled in teacher education (Jóhannsdóttir, 2010a). This study proposes enrolment in teacher education as a possible “double stimulation” (Vygotsky, 1978; Engeström, 2007) for new teachers, who began their careers without certification, and who, as teachers in schools are able to draw on their experience from enrolment as a support when dealing with the challenges that have to be overcome for developing new forms of practice. In the same way, being a teacher while enrolled in a teacher certification program may function as a stimulation for developing practice as a student.

Reviewing the literature reveals that the systemic perspective on cultural-historical activity theory (Engeström, 1987) is the one most commonly used whereas subject-centered perspectives are rarely found (e.g., Roth & Tobin, 2004; Smagorinsky, 2010). It has been pointed out, however, that although the systemic perspectives are useful for understanding well defined activity systems these do not take into account the wider societal and historical circumstances nor do they capture the emotional and intellectual processes of individual development (Stetsenko, 2013; Wardekker, 2010). Thus, individual learning cannot be fully explained in the context of activity systems, which raises doubts about the systemic approach as the appropriate category (unit) when attempting to understand learning and development, especially when it pertains and takes into account the *whole* person, who participates in many activities in the course of a single day and, frequently, does so in multiple activities simultaneously. It is for this reason that we propose using a unit of analysis that captures teacher development through the lens of the long-term *continuity* of experiencing, which itself is a process distributed across the person-in-environment unit. *Experiencing [pereživanie]* may well be the most important of the categories that Vygotsky introduced in psychology (Langford, 2005). Taking experiencing [pereživanie] as an analytic category/unit provides us with an unexpected—in the context of present scholarship—take on teacher education and development.

Experiencing [Pereživanie] as Category and Minimum Unit of Development

This study was designed to make a case for experiencing [pereživanie] as a category for understanding development that cannot be reduced to persons, their environment, or the person-environment *interaction*. We suggest taking *experiencing [pereživanie]* as a category for understanding human development, that is, as a minimum unit that reflects all the characteristics of the developmental whole: society and the person as a whole. This

unit undergoes (a) continuous, quantitative changes that we may denote as *learning* and (b) discontinuous, qualitative changes that traditionally have been termed *developing*. In the individual (subject), the unit is reflected ideally (in consciousness), affectively (emotions), and practically (changes in action [potential]). Sam, who in becoming a teacher was undergoing a qualitative developmental shift, was led to a new form of experiencing. Our focus is on developing from a dialectical perspective and the sections below describe the theoretical foundations on which we base our procedure, intertwining narrative and theoretical analysis. It is this category of experiencing [pereživanie] that allows researchers to emphasize the interplay of the person and setting (Sam-in-school-in-village), the “intakings and outgivings” that give rise to continuous (quantitative) and discontinuous (qualitative) changes. To understand the profound impact of the category of experiencing [pereživanie] on theorizing the quantitative and qualitative forms of human development requires an appropriate appreciation of the role of categories/ units.

Categories, Units, Germ Cells

In our account of Sam, we emphasize the relational nature of human personality in using such terms as *Sam-in-the school-in-the-village*. We thereby underscore that understand Sam cannot be understood as something independent of the cultural-historical setting that both constitutes and is constituted by Sam. His individuality, subjectivity, or personality cannot be understood as something independent of those contexts in which he (a) is the subject and (b) to which he is subject and subjected to. To understand human development, Vygotsky proposed studying behavior in terms of analytic units that retain the whole—as contrasted with analysis in terms of (independent) elements (Vygotskij, 2005). He uses the example of water, the minimum unit of which is the water molecule, each of which is composed of one atom of oxygen and two atoms of hydrogen.⁶ In the way we cannot understand the properties of a water sample by looking at the properties of oxygen and hydrogen, Vygotsky suggests that we cannot understand *characteristically human* behavior by decomposing it into elements. For Vygotsky, following Marx, society is where everything characteristically human is to be found (Langford, 2005). Thus, for example, he understands all higher psychological functions and personality to exist *in*, to be the result of, and (most importantly) to exist *as* “the ensemble of societal relations” (Vygotskij, 2005, p. 1023). Marx, whom Vygotsky directly quotes (Marx/Engels, 1958, p. 6), uses the German term *Verhältnis*, which (a) translates as “relations” and as “(material) conditions” and (b) explains human life in terms of both. For Vygotsky, understanding the development of individuals—such as Sam, who, as a villager, first is making a living as a fisherman then as a teacher—means having a unit that serves as a kernel that preserves the characteristics of society. That is, we cannot understand Sam independently of Iceland, where, as in some other countries (e.g., Canada, Russia, Chile), living in a small isolated village making a marginal existence as a fisherman still is integral part of society. The category of experiencing [pereživanie] denotes precisely one such unit: “*In experiencing*

⁶ We use the adjective “minimum” to modify the noun unit because water can be studied in terms of larger units. Because the smallest or minimum unit retains the properties of water, any larger unit also does so. Similar to human psychology, where Vygotsky’s call for unit analysis has led to cultural-historical activity theory, where *activity* is the smallest unit.

[*pereživanie*] we are always dealing with an irreducible unity of characteristics of the person and characteristics of the situation” (Vygotskij, 2001, p. 76, original emphasis).⁷

Categories are units of *change* itself. They can therefore be thought of as denoting the germ cells of development—just as the value form of commodity is the germ cell of economic development in political economy (Marx/Engels, 1962). Vygotsky, in his formulation of the general law of development, uses the term “*category* [kategorija]” (Vygotskij, 1983, p. 145), which is to be understood as denoting an “event, which creates the whole drama” (Veresov, 2010, p. 273). It may therefore not surprise that we chose this category/unit, given the dramatic events and developments of Sam-in-the-village, which occur at the margins of a globalized industrial world.

A developmental unit inherently embodies an inner contradiction because it contains, simultaneously, the “same” entity in *different* forms: “any concrete, developing system includes contradictions as the principle of its self-movement and as the form in which the development is cast” (Il’enkov, 1977, p. 330). Because this idea tends to be one of the most misunderstood aspects of dialectical materialist theory underlying Vygotsky’s work, consider the following analogy (e.g., Roth, 2014). If we take a circle as an *element* in a process that transforms the entity into an ellipse, then the force lies outside of the element involved (Figure 1a). On the other hand, when *change* is the *minimum* unit, then the force is internal to the minimum unit that also contains the beginning, transitional, and end forms of the entity transformed (Figure 1b). This unit, therefore, embodies an inner contradiction because it contains, simultaneously, the entity in its different forms. We can no longer say what the entity *is*, for, when we look at the unit, it appears as a circle, an ellipse, and every elliptical form between the two.⁸ That is, we must not think the unit (Figure 1b) as composed of simpler elements; rather, what can be identified, the circle, ellipse, or transformative process are *moments*, parts that can be understood only in terms of the whole that they constitute. Taking away only one of these moments leads to a different whole and, therefore, to different whole-part and part-part relations.

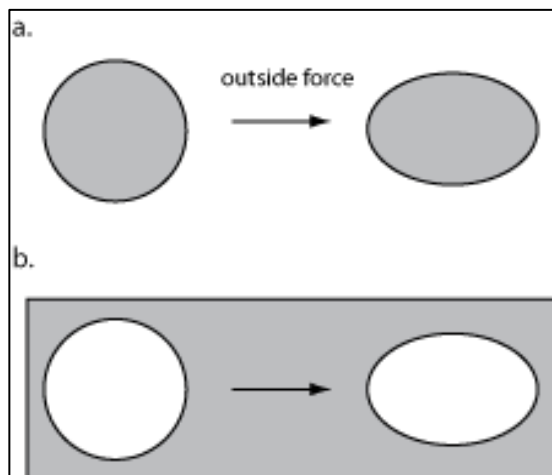


Figure 1. The circle is the unit; it is transformed, by a force outside of it, into an ellipse. b. A unit of change contains the transformation and, therefore, the entity in all of its forms: an inner contradiction.

⁷ Another such unit is *activity* [déyatel’nost’] as the smallest unit (category) that retains the characteristics of society, consciousness, and personality (Leont’ev, 1983).

⁸ For Marx/Engels (1958), value is such a unit, because it manifests itself as *use-value* or as *exchange-value* of a commodity, depending on the instant we make the observation.

Development in a Dialectical-Materialist Approach

In the dialectical approach to individuality (Stetsenko, 2013), there are two forms of development: an incremental one (quantitative) sometimes referred to as learning and a qualitative one, which changes the developmental trajectory of the unit. When Sam was a fisherman, some form of developmental changes occurred; very different developmental changes occurred when he made a living as a teacher. Both forms of development were relatively continuous, quantitative. The transition between the two forms of developmental trajectories was qualitative in nature and, therefore, more radical. Vygotsky described the first form in the context of the relation between speaking and thinking (Vygotskij, 2005). He understands these two as *processes* that mutually determine each other in such a way that speaking modifies thinking and thinking modifies speaking. As a result, speakers do not externalize in their speech finished thoughts but thoughts come to realize themselves in speaking. The two processes are manifestations of one overarching *process*, word-signification [značenie slova] (Vygotskij, 2005). In the present situation, the changing environmental characteristics are analogical to speaking, whereas the changing personal characteristics are analogical to thinking. The two are subsumed in the overarching movement of experiencing [pereživanie]. The associated changes, because of their incremental nature, often are referred to as learning.

A second type of change occurs when new qualitatively new forms of experiencing emerge. In the psychology literature, it is to this form of change that the term development is often reserved (which may be the source of difficulties in understanding the relation between learning and developing). For example, when our protagonist Sam changed from fishing and baiting as sources of income to teaching, there has been a restructuring process that led to a new developmental trajectory. Such qualitative shifts in experiencing—as understood here, i.e., the irreducible person-in-environment unit in its development—require the analyst to provide evidence for five sets of conditions that allow quantitative changes in experiencing to produce changes in experiencing that are qualitative in nature (Holzkamp, 1983; Roth, 2009). These conditions include (a) those aspects of the real historical conditions that are the materials of, and the basis for, the subsequent qualitative change; (b) the objective changes in the environmental conditions that lead to a contradiction within the person; (c) the emergence and evolution of a new form of experience that exists next to the previously dominant form (first qualitative change); (d) the change in dominance from the preceding form to the new form of experiencing (second qualitative change); and (e) the new direction in the developmental trajectory following the becoming dominant of the new, emergent form of experience.

Experiencing [Pereživanie]: The Interpenetration of Person and Environment

In our narrative of Sam, who went from making a life in the fishing-related industry to making a living as a teacher all the while contributing to the survival of Creek Village, we emphasize the relational nature binding Sam (his biography) and the village (its history). In experiencing [pereživanie], Vygotsky provided researcher with a category (analytic unit) appropriate for capturing precisely this relation that was so central to our description. Experiencing has been recognized as an important aspect of cultural-historical activity theory (Engeström & Sannino, 2010; Sannino, 2008). In a cultural-historical activity theoretic context, the notion of experiencing has been developed to theorize how subjects agentially deal with crises (Vasilyuk, 1991). However, in this version, a major dimension of experiencing is negated because of a focus on the “*special inner activity or inner work* .

. . . [of] an individual” (p. 15, original emphasis, underline added). Instead, we follow Vygotsky, who theorizes experiencing [*pereživanie*] as an irreducible unit, which, therefore, contains characteristics of the person—which, in our analogy, are the circular and elliptic forms (Fig. 1)—and characteristics of the environment. This unit is the “source of development of *specifically human* characteristics and qualities” (Vygotskij, 2001, p. 89, emphasis added). That is, the category is appropriate for capturing the *developmental* aspects of our narrative of Sam in the village.

The Russian word *pereživanie* not only translates “experiencing” but also “feeling.” Thus, when we use the term experiencing [*pereživanie*] we always imply the connotation of affect. Experiencing [*pereživanie*], therefore, is irreducible to person or environment but rather collects together every relevant characteristic of the environment and of the person (i.e., intellectual, practical emotional). In our account, we point out that Sam had arrived at a point in his life where he felt that he was done dealing with the blood and gore characteristic of a fisherman’s life. Affect was integral to every aspect of Sam’s life in the village, including his attachment to the place, and his sense of responsibility to it and its inhabitants (his students). These characteristics are *moments* of the whole of experiencing that cannot be understood in terms of independent parts. Experiencing [*pereživanie*] therefore integrates into one whole that what Vygotsky describes as a weakness of psychology: affect and intellect as autonomous factors. Because experience integrates the intellectual, practical, and emotional dimensions of human life, it “is a moving force” (Dewey, 1934/2008b, p. 21) that takes into account “the fullness of life as something alive, the living motives, interests, and drives” (Vygotskij, 2005, p. 678). It is a “dynamic system of sense, which represents the dynamic unit of affective and intellectual processes” (p. 679). Applied to the present context of teacher development, this means that *experiencing* captures the *change* within the irreducible person-in-setting unit, a change that has its source *within* the unit.

The environment, Creek Village at its present cultural-historical stage, is to be understood in societal-historical and material terms, leading to relations with others and material conditions that are specific to situations and historical periods. Sam did not just make a willy-nilly decision about becoming a teacher. Rather, his biography is tied to the history of Creek Village. Together, they have been living through hard times related not only to isolation but also to the global forces of market economy and the associated global migration of workers, who find themselves in unfamiliar cultures (e.g., the non-Icelandic speaking migrant workers in the tiny outport of Creek Village). The environment, here Creek Village, therefore “cannot be considered by us as immobile and *external* in relation to development, but must be seen as changeable, dynamic” (Vygotskij, 2001, p. 81, emphasis added). Between person (Sam) and environment (Creek Village in its cultural-historical context), there is therefore “a continual coming and going of one into the other” (Mikhailov, 2002, p. 20) so that “experiencing like breathing is a rhythm of intakings and outgivings” (Dewey, 1934/2008a, p. 62). That is, the environment is *internal* to the developing unit, that is, experiencing [*pereživanie*]. In the same way, the person (Sam) is to be understood in historical terms, for, in any situation, it has been the result of development, that is, experiencing [*pereživanie*]. As a unit (category, germ cell), experiencing [*pereživanie*] would change if we were to take only one of its moments away, whether this moment is more dominant in the environmental or the personal part.

The category of experiencing—just as the category of experience for the philosopher Dewey—allows Vygotsky to think about and theorize a developmental continuum, where

earlier forms of experiencing influence not only specific later forms of experiencing but also development as a whole (e.g., Roth & Jornet, 2014). Thus, “every experience enacted and undergone modifies the one who acts and *undergoes*, while this modification affects, whether we wish it or not, the quality of subsequent experiences” (Dewey, 1938/2008b, p. 18, emphasis added). Importantly, Dewey includes the fact that we *undergo* experience, that is, that there are environmental influences that we do not control but have to endure. There is “an element of undergoing, of suffering in its large sense, in every experience” (Dewey, 1934/2008a, p. 47–48). Sam was not just the subject of experiencing but also subject and subjected to it. Even though he had decided to become a teacher, felt the calling of the profession, there are essential moments of his life as a teacher that were out of his control, including the nature of the students, their biographies, the context of the school and its problems, and the contradictions arising from his own biography. Paraphrasing Vygotsky for our problem of teacher development, we might say that the experiencing [pereživanie] of any situation or any part of the environment determines the influence that the environment will have on teachers and teacher development.

In sum, experiencing [pereživanie] is to be thought about in terms of two axes, situational and temporal. In our account, we emphasize both temporal and situational aspects that contribute to the nature of the qualitative and quantitative developments we observe in the life of Sam. In fact, Dewey (1938/2008b) terms these the “longitudinal and lateral aspects of experience” (p. 25). The category, for both Vygotsky and Dewey, also captures the interpenetration of the praxis, intellect, and affect that we have seen in Sam’s life generally and, for example, in his relation to the concrete students he teaches more specifically. What Sam does, his knowledge of the disciplines he teaches and the related pedagogical knowledge is inseparable from the affective and practical dimensions of becoming as a fisherman or becoming (as) a teacher. In fact, “it is not possible to divide in a vital experience the practical, emotional, and intellectual from one another and to set the properties of one over against the characteristics of the other” (Dewey, 1934/2008a, p. 61). In pragmatic philosophy, the term *transaction* is used precisely to highlight the fact that experiencing cannot be reduced to the individual or environmental characteristics (Dewey & Bentley, 1949/1999). In practical action, there are intellectual and affective dimensions; in intellectual action, there are practical and affective characteristics; and affect results from and shades practical and intellectual work.

Discussion and Implications

The purpose of this study is to make a case for experiencing [pereživanie] as a category, an analytic unit that retains the characteristics of society. Experiencing [pereživanie] integrates changing environmental and personal characteristics. By taking experiencing [pereživanie] as the prism through which we study the process of teacher learning, we capture teacher development in a more holistic way than we have seen in the literature. We exhibit developmental process both in terms of continuous (quantitative) changes within a particular form of experiencing and in terms of the turn over between qualitatively different forms of experiencing (i.e., fishing versus teaching). Directly addressing the continuity of experiencing (Dewey, 1938/2008b), we take into account experiences before the qualitative changeover that makes Sam’s teaching the dominant form of making a living and the developmental trajectories within the new form of experience that come with being a teacher. We take up the challenge of using experiencing

[pereživanie] as the analytic unit through which to understand person-in-environment transactions (Dewey, 1938/2008b; Vygotskij, 2001). This move permits us to understand becoming (as) a teacher as a manifestation of societal processes as these manifest themselves across space (the situatedness of experiencing) and time (life-long development or more momentary changes). We use a study from rural Iceland as a case that a developmental theory of the whole person has to be able to explain. We suggest that the category of experiencing [pereživanie] is precisely what is required to understand not only how Sam develops as a teacher but also how and why he becomes a teacher in the first place. In the following, we discuss two forms of implications from our study relating to (a) the consequences of making a radical commitment to experiencing [pereživanie] as a form of unit analysis and (b) implications of this approach for teacher education, all too often focusing on the individual teacher rather than on development in irreducible person-in-environment units.

A Radical Commitment to Unit Analysis

Our case study exhibits continuous, quantitative changes in environmental and personal characteristics (becoming *as* a teacher) as well as qualitative turnovers between dominant forms of experiencing (becoming a teacher) within the continuity of experiencing that perpetually makes a person. Experiencing and changing only disappear with death (Bakhtin, 1993). Our account emphasizes the irreducible relation between environment (Creek Village) and person (Sam), which starkly contrasts going accounts of teacher development that tend to reduce development to the individual irrespective of societal-material and cultural-historical contexts. Our approach, in contrast to that taken by scholars focusing on *participation*, necessarily takes into account antecedent forms of experiencing as well as experiencing in the process of learning to become a teacher. We emphasize the continued and “enduring struggles” (Holland & Lave, 2009) at the level of Creek Village, attempting to survive in an era of global developments that make it increasingly difficult to make fishing a viable source of income, and at the level of Sam, in the individual struggle of making a living. Inherent in the dialectical method is that all phenomena are studied as processes in motion. Individuals enter teaching with different backgrounds and their antecedent forms of experiencing have formed their personalities. Here we show that the process of entering itself has to be theorized as part of a larger unit of development that takes the *whole* person in transaction with the (societal, material) environment as the unit (e.g., Roth & Jornet, 2014). If their learning processes in teacher education programs are to be studied in terms of how experiencing school practice and university programs have supported them in becoming teachers then it is problematic not to take into account the forms of experiencing they have when entering the programs. In the same way, the historical dimensions in the activity systems under consideration would need to be examined as development and transformation of individuals and systems in interactions.

A radical commitment to experiencing [pereživanie] requires different forms of narratives, forms that do not reduce a unitary whole—here experiencing [pereživanie], theorized as a developmental process of person-in-environment transaction—to the intentions or abilities of a person in part of his/her life. A radical commitment to unit analysis focuses on becoming (as) a teacher in terms of the minimum unit, where the whole is society and the whole life of the person, itself a constitutive moment of society. Minimal units that preserve the characteristic of the whole—i.e., society—are experiencing [pereživanie], the

irreducible, always-developing person-in-setting relation, and personality (“[Man] = *the ensemble of societal relations*” [Vygotskij, 2005, p. 1028, original emphasis, underline added]).

A radical commitment to unit analysis generally and to experiencing [pereživanie] specifically decenters what we can say and how we can say about human (teacher) development. On the one hand, we have to think about the continuing development of person-in-environment. This development is reflected differently in consciousness (intellectually, ideally), affect (emotionally), and changing practical actions. Moreover, a focus on the *person* requires us to theorize development in terms of personality, only one (perhaps very minor) part of which relates to teaching. A focus on the whole person also highlights the *continuity* of experience (Dewey, 1938/2008b), which, as we show here, exists even across discontinuities or qualitative changeovers in dominant forms of experiencing (e.g., from making a living in fishing to making a living in teaching). Rather than thinking about boundary crossing, a focus on experiencing allows us to make simultaneously thematic continuity and discontinuity, the latter itself constituting a form of continuity in the totality of a person’s life: the discontinuity in livelihood occurs against the continuity of Sam as a villager and against Sam as a whole person.

Implications for Teacher Education

In the preceding subsection, we intimate that one cannot just talk about *teacher* development, because teaching is not the unit that preserves the fundamental characteristics of the whole-person[ality]-in-environment unit. Using experiencing [pereživanie] as the category for analyzing the trajectory of becoming a teacher and becoming as a teacher has opened up an understanding of the irreducible teacher-in-the-setting unit as the source for learning, changing, and developing. This has major implications for teacher education programs that are planned, depending on jurisdiction (country), as 3–5 years of academic studies associated with internships or practica that vary in length according to institution or jurisdiction (state, province, country). Academic studies, however, tend to focus on developing knowledge (and perhaps practices) of the *individual* rather than focusing on supporting developments of *units*. In the present instance, the teacher education program was intended to provide those enrolled with opportunities to learn teaching specific practices and theoretical knowledge. It was not geared towards supporting the development of units, for example, the one that we may denote by the term *the-whole-Sam-now-teaching-in-the-Creek-Village-school*. Moreover, evaluations that lead to certification—e.g., classroom observations and formal examinations—tend to take the individual as the unit to be assessed rather than the unit as a whole. There is evidence that the difference in assessment can be as large as that between “the person has a learning disability” and “the person is highly literate” (Roth & Barton, 2004). Thus, teacher educators might well heed the psychologist R. E. Snow’s advice that a valid assessment of aptitude requires observations of a person across a large number of settings (Corno et al., 2002). Relatedly, teacher educators might therefore be interested in assisting developments to occur in units of the whole person across a great range of forms of experiencing [pereživanie], only one of which is teaching and theories of teaching. In the world outside education, many companies support development of the whole person by offering childcare opportunities, flexible work hours, working from home, exercise facilities at work, or workplace learning opportunities; and, in so doing,

improve the quality of labor they receives in turn. In education, we are still far from supporting experiencing in such ways.

When thinking about supporting student teachers in becoming teachers we suggest thinking in terms of the whole person where teaching is but a part of what the person is and will be doing. Teacher education programs might have to be organized in terms of new forms of experiencing for beginning teachers taking into account their antecedent forms of experiencing in life as well as other forms of experiencing they are subjected to in their lives. Students and new teachers might then be encouraged to experiment with and think about the way in which something they know and have done in their antecedent or concurrent forms of experiencing. This could be used in the new form of experiencing that they are subjected to or entering. This could also be used for thinking about how to change direction in response to contradictions they encounter in the school activity as their new form of experiencing. The challenge in and for teacher education then would be to support student teachers and new teachers' in understanding how forms of experiencing are the base from which new forms of experiencing of becoming teachers develops, step by step. Emphasizing the way in which antecedent forms of experiencing both becomes a less-dominant form and remains a resource in future forms of experiencing after an individual has committed to teaching.

References

- Bakhtin, M. M. (1993). *Towards a philosophy of the act*. Austin, TX: University of Texas Press.
- Corno, L., Cronbach, L. J., Kupermintz, H., Lohman, D. F., Mandinach, E. B., Porteus, A. W., Talbert, J. E. for the Stanford Aptitude Seminar (2002). *Remaking the concept of aptitude: Extending the legacy of Richard E. Snow*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dewey, J. (2008a). Art as experience. In *Later works vol. 10* (J.-A. Boydston, Ed.) (pp. 42–63). Carbondale, IL: Southern Illinois University Press. (First published in 1934)
- Dewey, J. (2008b). Experience and education. In *Later works vol. 13*: (J.-A. Boydston, Ed.) (pp. 5–62). Carbondale, IL: Southern Illinois University Press. (First published in 1938)
- Dewey, J., & Bentley, A. F. (1999). Knowing and the known. In R. Handy & E. E. Hardwood, *Useful procedures of inquiry* (pp. 97–209). Great Barrington, MA: Behavioral Research Council. (First published in 1949)
- Douglas, A. (2010). What and how do student teachers learn from working in different social situations of development in the same school? In V. Ellis, A. Edwards & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education and development* (pp. 30–44). London, UK: Routledge.
- Edwards, A., Gilroy, P., & Hartley, D. (2002). *Rethinking teacher education. Collaborative response to uncertainty*. London, UK: Routledge.
- Edwards, A., & Mutton, T. (2007). Looking forward: rethinking professional learning through partnership arrangements in Initial Teacher Education. *Oxford Review of Education*, 33, 503–519.
- Engeström, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research*. Helsinki, Finland: Orienta-Konsultit.
- Engeström, Y. (1993). Developmental work research as a test bench of activity theory: The case of the primary medical care practice. In S. Chaiklin & J. Lave (Eds.), *Understanding practice: Perspectives on activity and context* (pp. 64–103). Cambridge, England: Cambridge University Press.
- Engeström, Y. (2001). Expansive learning at work: toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14, 133–156.
- Engeström, Y. (2007). Putting Vygotsky to work. The change laboratory as an application of double stimulation. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 363–382). Cambridge, UK: Cambridge University Press
- Engeström, Y., & Sannino, A. (2010). Studies of expansive learning: Foundations, findings and future challenges. *Educational Research Review*, 5, 1–24.
- Ellis, V. (2010). Studying the process of change: the double stimulation strategy in teacher education research. In V. E. Ellis, A. Edwards, & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education* (pp. 95–114). London, UK: Routledge.

- Holland, D., & Lave, J. (2009). Social practice theory and the historical production of persons. *Actio: An International Journal of Human Activity Theory*, 2, 1–15.
- Holzkamp, K. (1983). *Grundlegung der Psychologie* [Laying the foundation of psychology]. Frankfurt/M, Germany: Campus.
- Holzkamp, K. (1993). *Lernen: Subjektwissenschaftliche Grundlegung* [Learning: Subject-scientific foundation]. Frankfurt/M.: Campus.
- Il'enkov, E. (1977). *Dialectical logic: Essays in its history and theory* (Transl. by H. Campbell Creighton). Moscow, USSR: Progress Publishers.
- Jahreie, J. F., & Ottesen, E. (2010). Construction of boundaries in teacher education: Analyzing student teachers' accounts. *Mind, Culture, and Activity*, 17, 212–234.
- Jóhannsdóttir, T. (2010a). Deviations from the conventional: contradictions as sources of change in teacher education. In V. Ellis, A. Edwards & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education and development* (pp. 163–179). London, UK: Routledge.
- Jóhannsdóttir, T. (2010b). *Teacher education and school-based distance learning: individual and systemic development in schools and a teacher education programme*. PhD Doctoral thesis, University of Iceland. Retrieved from <http://hdl.handle.net/1946/7119>
- Konkola, R., Lambert, P., Tuomi-Gröhn, T., & Ludvigsen, S. R. (2007). Tools for promoting learning and transfer across boundaries. *Journal of Education and Work*, 20, 211–228.
- Lambert, P. (2003). Promoting developmental transfer in vocational teacher education. In T. Tuomi-Gröhn & Y. Engeström (Eds.), *Between education and work: New perspectives on transfer and boundary crossing* (pp. 233–257). Amsterdam, The Netherlands: Pergamon Press.
- Langford, P. E. (2005). *Vygotsky's developmental and educational psychology*. Hove, UK: Psychology Press.
- Leont'ev, A. N. (1983). Dejatel'nost'. Soznanie. Ličnost'. [Activity, consciousness, personality]. In *Izbrannye psixologičeskie proizvedenija vol. 2* (pp. 94–231). Moscow, Russia: Pedagogika.
- Marx, K./Engels, F. (1958). *Werke Band 3* [Works vol. 3]. Berlin, Germany: Dietz.
- Marx, K./Engels, F. (1962). *Werke Band 23: Das Kapital* [Works vol. 23: Capital]. Berlin, Germany: Dietz.
- Max, C. (2010). Learning-for-teaching across educational boundaries: an activity theoretical analysis of collaborative internship projects in initial teacher education. In V. Ellis, A. Edwards & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education* (pp. 212–240). London: Routledge.
- Mikhailov, F. T. (2002). The “other within” for the psychologist. *Journal of Russian and East European Psychology*, 39, 6–31.
- Roth, W.-M. (2004). Activity theory in education: An introduction. *Mind, Culture, & Activity*, 11, 1–8.

- Roth, W.-M. (2009). Cultural-historical activity theory: Toward a social psychology from first principles. *History and Philosophy of Psychology Bulletin*, 21 (1), 8–22.
- Roth, W.-M. (2014). Reading *Activity, Consciousness, Personality* dialectically: Cultural-historical activity theory and the centrality of society. *Mind, Culture, and Activity*, 21, 4–20.
- Roth, W.-M., & Barton, A. C. (2004). *Rethinking scientific literacy*. New York, NY: Routledge.
- Roth, W.-M., & Jornet, A. (2014). Towards a theory of *experience*. *Science Education*, 98, 106–126.
- Roth, W.-M., & Tobin, K. (2002). Redesigning an “urban” teacher education program: An activity theory perspective. *Mind, Culture, & Activity*, 9, 108–131.
- Roth, W.-M., & Tobin, K. (2004). Coteaching: From praxis to theory. *Teachers and Teaching: Theory and Practice*, 10, 161–179.
- Roth, W.-M., Tobin, K., Zimmermann, A., Bryant, N., & Davis, C. (2002). Lessons on/from the dihybrid cross: An activity theoretical study of learning in coteaching. *Journal of Research in Science Teaching*, 39, 253–282.
- Roth, W.-M., & van Eijck, M. (2010). Fullness of life as minimal unit: STEM learning across the life span. *Science Education*, 94, 1027–1048.
- Sannino, A. (2008). From talk to action: Experiencing interlocution in developmental interventions. *Mind, Culture, and Activity*, 15, 234–257.
- Sannino, A. (2010). Breaking out of professional abstraction: the pupil as materialized object for trainee teachers. In V. E. Ellis, Anne & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education* (pp. 146–159). London, UK: Routledge.
- Schraube, E., & Osterkamp, U. (2013). *Psychology from the standpoint of the subject: Selected writings of Klaus Holzkamp*. Houndsville, England: Palgrave Macmillan.
- Smagorinsky, P. (2010). A Vygotskian analysis of the construction of setting in learning to teach. In V. Ellis, A. Edwards & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education and development* (pp. 13–29). London, UK: Routledge.
- Stetsenko, A. (2013). The challenge of individuality in cultural-historical activity theory: “Collectividal” dialectics from a transformative activist stance. *OUTLINES – Critical Social Studies*, 14, 7–28.
- Tsui, A. B. M., & Law, D. Y. K. (2007). Learning as boundary-crossing in school-university partnership. *Teaching and Teacher Education*, 23, 1289–1301.
- Vasilyuk, F. (1999). *The psychology of experiencing*. Moscow, USSR: Progress Publishers.
- Veresov, N. (2010). Forgotten methodology: Vygotsky’s case. In A. Toomela & J. Valsiner (Eds.), *Methodological thinking in psychology: 60 years gone astray?* (pp. 267–295). Charlotte, NC: Information Age Publishing.
- Vygotskij, L. S. (1983). *Sobranie sočinenij tom čtveryj: Detskaja psixologija* [Works vol. 4: Child psychology]. Moscow, USSR: Pedagogika.

Vygotskij, L. S. (2001). *Lekcii po pedologii* [Lectures on pedology]. Izhevsk, Russia: Udmurdskej University.

Vygotskij, L. S. (2005). *Psixhologija razvitija človeka* [Psychology of human development]. Moscow, Russia: Eksmo.

Wardekker, W. (2010). Afterword:CHAT and good teacher education. In V. Ellis, A. Edwards & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education and development* (pp. 241–248). London, UK: Routledge.

About the Authors

Thurídur jóhannsdóttir is Associate Professor in Educational Studies at the University of Iceland. She conducts research on teacher education and school development and the possibilities inherent in use of ICT as a tool for development.

Contact: Háskóli Íslands, Menntavísindasvið, v/Stakkahlíð, 105 Reykjavík, Iceland.

Email: thuridur@hi.is

Wolff-Michael Roth is Lansdowne Professor of Applied Cognitive Science at the University of Victoria. He conducts transdisciplinary research on knowing and learning across the lifespan. His most recent studies concern learning and assessment of pilots and their examiners.

Contact: MacLaurin BUilding A567, University of Victoria, BC, V8P 5C2, Canada.

Email: mroth@uvic.ca