

On “becoming-aware” as a key component to teachers’ professional development¹

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Teachers’ professional development is a research interest of great relevance on teaching and teacher training literature. Teacher education programs tend to focus on techniques; in-service programs often are understood in terms of incremental change to improve on what they are already doing. Previous researches on teacher's professional development have offered descriptions and definitions to this concept, such as: a) an ongoing learning process (WITTERHOLT et al., 2012), b) training models leading to changes in teachers’ practices (GUSKEY, 2002), c) a collaborative work to enhance abilities among peers (LEWIS, BAKER and HELDING, 2015), d) learning communities (MITCHELL, 2013), e) an acquisition of a set of new teaching knowledge and specific data of each field of study (HARGREAVES, 2000) and f) reflective practice (SCHON, 1983). In Latin–America studies on teachers’ professional development are contextualized within initial and continuing education, focusing on enhancing professionalism (SCARINCI, PACCA, 2015; MASSABNI, 2011). Other researchers emphasize that teachers’ professional development must occur through collaboration (URZETTA, CUNHA, 2013; FORTE, FLORES, 2012), understood as a fundamental element to quality. Do Carmo Zanotto and De Rose (2003) propose

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that teachers' professional development refers to inquire their own work in order to improve quality of their pedagogical practices. Brzezinski (2014), Pimenta and Almeida (2014), Gatti, Barreto and André (2011), Gatti (2010, 2011), propose the need of transforming not only the practices, but also teachers.

These studies exhibit different approaches and understandings concerning how teachers “change” and how they continuously modify their teaching practices throughout their careers. This notion of professional development is related solely to the acquisition of new knowledge and/or new techniques to continuously improve the teaching practice, instead of a substantial reorganization in conscience (JÓHANNSDOTTÍR and ROTH, 2014). These analyses do not usually differentiate development – which appears in Psychology literature as a leap, that is, a qualitative change – from the concept of learning – a cumulative form of incremental change, quantitative (VYGOTSKY, 1994). Accordingly to Germanos (2016) both terms, development and learning, are frequently used as synonyms. However, whenever this occurs, the concept of development is alienated from its essence. Firstly, in order to truly change their practices, teachers must confront their actual teaching practice in the classroom with their teaching aspirations. Secondly, teachers must overcome all this in order to reach a substantial change in their practices. The difference between continuous growth (learning) and discontinuous growth (development) is vital. The importance of distinguish these concepts is connected to the processes of teachers' education (pre-service and in-service teachers) that are effective to transform teaching practices. The reason for this relies on the wide difference existing between the support for continuous changes and the efforts that target qualitative changes in teachers' work.

Drawing knowledge from this conceptual framework, this article discusses the concept of development as proposed by Vygotsky, taking into consideration *becoming-aware* as a crucial component to transform teaching practices. The purpose of this paper is to contribute to theorizing the continued becoming of teachers not only by making a clear distinction between *learning* and *development* but also by exhibiting how the two very different processes are interconnected allowing the latter to arise, often unpredictably, from the former (Vygotskij, 1984).

1. The concept of development

To understand development as proposed by Vygotsky one must first comprehend how a person develops as a human being, so as to realize how and when people go through changes throughout their lives. According to Vygotskij (1934) traditional psychology separated individual's emotional aspects from the intellectual aspects, and by doing so, separated thinking "from the plenitude of real life, from the causes, the interests and needs" (p.14). Thus, research on teachers' professional development tends to come apart from all the rest that happens in teachers' lives. This is a key aspect that must be acknowledged, given that Cultural Historical theory points out that each activity – be it in the family environment, or the leisure, community and political context – affects all other activities (LEONTIEV, 1978).

Development is a process of "transition from one stage to another, as the process of reorganization of the structure of [the child's] consciousness" (VYGOTSKIJ, 2005). Changes are continuous throughout the stages of life, but they are discontinuous between one stage and another. Influenced by Leontiev's work, Klaus Holzkamp⁴ reconstructed the fundamental dimensions of psyche development sought to understand the evolution of new forms in the human psyche. Holzkamp⁵ picked up on the definitions and fundamental determinations

⁴ Klaus Holzkamp (1927-1995) was a professor in the Free University of Berlin and founder of the German Critical Psychology. He worked for the renewal of academic psychology. Although his approach raised international discussion, a great deal of his work is not yet available in other languages, only in English translations. Holzkamp became known with his experimental research in the fields of perception, cognition and social psychology. In this context, he wrote the epistemology works "Theorie und Experiment in der Psychologie" (Theory and Experiment in Psychology, 1964) and "Wissenschaft als Handlung" (Science as Action, 1968). In such works, the author is concerned with the contradiction between the emphasis placed in experience as the authority to test the theoretical developments in psychology and the insufficient explanation for the "representation program" – that is, the link between experimental data and their corresponding theoretical researches. According to Holzkamp, scientific investigation can be regarded as a productive activity, especially in the context of human action in a whole. Moreover, the critical analysis of his scientific concepts must be an essential part of any systematic psychological research (Osterkamp and Schraube, 2013).

⁵ Holzkamp and his collaborators reconstructed the fundamental dimensions of psyche development at the phylogenetic level, so that "social nature" constitutes the human being's resource to differentiate the species. Thus, "social nature" represents the achievement of an individual's specific ability of developing within sociohistorical dimensions, becoming its holder and transformer. In accordance with this orientation, the natural and sociohistorical development of psychic functions – such as perception, emotion and motivation – also goes through a conceptual reconstruction, being incorporated to the reality of these functions. In this process, the wordlessness of traditional psychology is overcome (Osterkamp and Schraube, 2013).

of the psyche as proposed by Leontiev (1978) and developed a general dialectical method of articulating the emergence of new qualities in the phylogeny of human psyche. Now, if development is analyzed alongside the evolution of species as Vygotsky (1997) proposed, and the selective pressures within a given environment are the driving force of species evolution, the evolution of psyche (understood as a human characteristic) can be described and explained as the outcome of phylogenetic and anthropogenic processes (HOLZKAMP, 1983).

In the light of the dialectical materialist approach, the most evident, observable and concrete forms are also the most developed ones. Thus, the study of the most current form of conscious is the key to understanding the most primitive forms of conscious. In order to exemplify this affirmation, we go back to Vygotsky, who relies on Marx to claim that the study of human anatomy is vital for understanding other primate's anatomy. In other words, the study of the most complex form leads to the comprehension of less complex form. In agreement to Vygotsky analysis, and considering that the human psyche is the most current state of the evolutionary sociohistorical processes, one can understand how anthropogenesis⁶ constitutes a crucial step, coming along with a significant change in the behavior of hominids. This change is related to the tribal and nomad way of life that, in order to cover groups' needs, switched to a new condition of organization through productive and collective work. Therefore, this new way of living in groups gave rise to new forms of social organization and their evolution (ROTH, 2016). Moreover, psyche emerged in this process of anthropogenesis, as well as other human beings' features. It is important to note that psyche was originated from an ancestral ability (also observed in primates) that evolved and conquered society in the context of its cultural-historical development.

Development occurs from the abstract to the concrete, that is, the less differentiated originates new development possibilities; and by means of progressive and concrete differentiations (ROTH, 2016). A neoformation cannot

⁶ Human beings are not distinguished from other animals because they live in groups, use tools in order to solve complex tasks, establish division of labor, accomplish relations of exchange, build shelters, nor because they acquire practical competences through observation and imitation. They are distinguished because they live in society. Researchers (de WAAL, 1999) have shown that all these aspects are present in other animals, including those that are closest to humans – primates.

be analyzed solely at the level of individual development, but at the level of species, since there is a relationship mediated between the individual and the collective. According to Vygotsky, dialectically, social relationships give rise to all superior psychological functions, and all other aspects of human personality. Therefore, sociogenesis indicates that the highest psychological functions and personality features first exist as societal relations (VYGOTSKY, 1997).

These particularly human qualities are attributable to society, and arise as the most dominant aspect of human condition during anthropogenesis. From this angle, the Marxist psychologist Holzkamp (1983), has described five stages of analysis of development in order to show the relevance in the changes in the formation of conscience, within the passage from quantity to quality (ROTH, 2003, ROTH, 2008; ROTH, 2009, JÓHANNSDÓTTIR and ROTH, 2014). These stages are necessary for the qualitative emergence of every new psychic process: 1) A dominant form of experience undergoes quantitative changes; 2) The first crisis, in which the individual becomes conscious of a new form of experience; 3) A period in which two alternative forms of experience coexist, but in which the oldest form is still dominant; 4) The transition of what initially constituted the dominant form to a new form of experience; and 5) The period in which the new form of experience suffers incremental changes, but in a different trajectory in comparison to the cumulative changes suffered by the other form of experience. To the second and fourth events, contradictions are the critical points. They first appear externally to conscience and, then, are reflected in the individual's conscience. Continuous incremental changes (learning) are observed before, between and after qualitative changes (development). These five stages are necessary to ensure that both the contradictions – that enable the genesis of new psychological functions – and the alteration from the oldest to the newest emerge as new qualitative forms of experience, arising from preexisting forms of experience (HOLZKAMP, 1983; ROTH, 2016).

2. Contradictions and becoming-aware

In order to understand how changes occur, one must look to the real conditions of the environment. These include the contradictions that emerge through external and internal conditions, and that exhibit a simultaneous existence, which leads to transitions from one trajectory to another. The vygotskian concept of conscience underwent several transformations according to the work phases of the psychologist, but ended up reaching a conceptual maturity that does not coincide with moral or political conscience, neither with a scientific concept. The conscience is the most important research problem in Vigotski's works (LEONTIEV, 1996; LURIA *apud* TOASSA, 2006). Conscience is always a socially-mediated conscience of something (VYGOSTKI, 1928-1933/1996); it is the relationship of a child with the environment, and, subsequently, of a person with himself (Luria, 1988). Conscience is a dynamic system related to the development of new forms of think of an event.

When the teacher recognizes the contradictions and becomes aware of what they truly accomplishes in the classroom, the transformation of the practice – through dialectical confrontation – becomes a possibility. Thus, becoming-aware allows the teacher to experiment new ways of teaching. In other words, with the realization of a new conscience it is possible to accomplish cumulative-quantitative changes that can lead to a qualitative leap (development). The process of becoming-aware is a unit of analysis referring to conscience, refers to the relations of comprehension that are established with the environment. It is as if the teacher was experiencing a moment of realization when they become aware of not being the same teacher as one thinks. The product of this new form of conscience culminates in the transformation of the conception of teaching and of the teaching practice. Like a realization moment – impossible to predict and/or predetermine – the new forms of conscience that emerge throughout a teacher's life does not happen in a predictable way.

Contradictions play an important role in the changes that occur in teachers' practices boosting the becoming-aware of teachers with regard to their way of teaching, thus generating transformations in their praxis (GERMANOS,

2016). An ethnographic description in compliance with data of a Didactic-Formative Intervention⁷ from Germanos (2016) demonstrated that becoming a teacher is not an isolated fact in life. Routinely, an individual does not participate in a single type of activity, but in multiple activities that characterizes the society in which they are inserted. All these activities are interconnected and related to each other. Germanos (2016) data suggests that, although the participants have studied to become teachers, they used to have various professional activities in order to complement their salaries. Thus, being a teacher did not constitute their main professional activity neither was the main activity to life as a whole.

A relevant example of this situation derives from one of the teachers who participated in this research. In addition to being a teacher, he worked as a policeman – two works that differ significantly, and raises contradictions. He did not have time to adequately follow the demands from school and his other activities (policeman, father and husband). During the time that this teacher had a medical leave from his job as a policeman, he had the chance of experiencing the possibility of being exclusively a teacher. This contradiction enabled the origin of the first crisis. The possibility of change – that is, of stop being a teacher-and-policeman and becoming a full-time-teacher reflects the first qualitative change in his development. The alterations in this teacher's personal characteristics are the reflex of the changes in the environment. It is important to note that there is not an environmental determinism in relation to the choice he made – i.e. stop being a policeman and becoming a full-time teacher. What is truly boosting the change is the dialectical relationship between the changes in the environmental circumstances and the becoming-aware about teaching. In the teacher's conscience, a new option, a new way of life, came up as a possibility.

⁷ The term *Didactic-Formative Intervention* represents the outcome of a collective effort undertook in a research project coordinated by Andrea Maturano Longarezi, PhD, who predicted intervention processes that were carried out by teachers of different levels of education (Elementary, High School, and College). Such interventions were accomplished in order to propose formative activities that could enable them to “constitute a conception of developmental didactics” (LONGAREZI, 2012, p.19-20) while elaborating teaching activities that had “as an objective-end the development of students” (idem). In general, actions defined as Didactic-Formative Intervention have tried to “support teachers theoretically for the appropriation of principles [...] and, in this process, to analyze and elaborate teaching activities that put students in study activities, so as to promote, through education, the learning-development of students” (idem).

And these new environmental attributes (affordances⁸) emerged because he was part of the study group. As soon as a new form of activity – full-time-teacher – assumes the dominant role in the teacher’s life, continuous quantitative changes follow. Meanwhile, in the process of appropriation and objectification of the foundations and practices of Cultural Historical Theory and developmental teaching, the teacher experiences another contradiction. The act of looking into his teaching practice – a teaching that promotes development and that works in the zone of possibility of the student – engenders a second and important crisis: the need to overcome his own conceptions and teaching practices. During this period, he enhanced the quality of his teaching activities, enabling a new form of discontinuous change that led to development (GERMANOS, 2016).

3. Teacher professional development

The main factors considered to explain the influence of the environment on the psychological development of teachers’ personalities are composed of their experiences⁹. These experiences arise from any situation or any environmental aspect that has impact on individuals. Otherwise stated, not every factor establishes the course of development of a given person. This network of relations between people and environment is composed of many factors. Thereby, one can say that in order to understand the development of each one, these factors are reflected not as a mere image, but in a dialectical relation. According to Vygotsky, the influence of the environment on the development must be investigated in order to be able to recognize and understand that it is only

⁸ Gibson’s (1979/1986) key concept *affordance* is a noun that makes reference to the environment, enabling the opportunity for action. According to Oliveira and Rodrigues (2006), no Portuguese word can accurately translate the meaning of *affordance*. The authors explain that “*affordances* are possibilities of action offered to the agent, from the environment”. Gibson considers that reciprocity allows a dynamic interdependence between the agent and the environment. Consequently, it is what the environment enables and offers.

⁹ The concept *perejivanie* was developed in Vygotski’s “The problem of environment” (1934), which was part of the book “*The Vygotsky Reader*”, by Rene van der Veer and Jaan Valsiner. This concept is also explained by Vygotski in “La crisis de los siete años” (“The seven-year-old crisis”), Obras Escogidas, Tomo IV (VIGOTSKI, 2006), translated as “la vivencia” in Spanish. According to Prestes (2010), the word *perejivanie* was translated in the majority of Portuguese works as “experiência”. In English, the concept is also translated as *experience*, although English-speaking authors claim that there is no adequate term for *perejivanie* in this language. It’s worth mentioning that the word “experience” is not robust enough to represent the meaning attributed by Vygotski. The discussion around this complex term is extremely valuable, being crucial for the comprehension of many aspects in vygotskian theory. To Zoia Prestes, the most accurate Portuguese word for the concept *perejivanie* is “vivência”.

through experiences that one becomes aware of a certain event, therefore interpreting it according to how it was “reflected”. This process has an influence on the development of individuals, being composed of events that are at the same time unpredictable and unable to be predetermined. It is important to note that the environment is a factor of influence that has an effect side by side with other factors, like the comprehension level, the stage of current development of the individual, and his/her perception of what happens on the surroundings. The kernel of this issue is that, whatever the situation, the development level transition does not depend only on the influence of the situation itself. In the case of teachers, it is also contingent on the level of comprehension and awareness regarding their objectifications and the situation in which they are inserted.

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