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A few remarks about the theoretization of basic didactic categories in a constructivist educational model

KEYWORDS

constructivism, didactics, model of education, knowledge

ABSTRACT

In my article I point to the essential meaning of the “theoretical content” of the accepted educational model. Lack of knowledge of the assumptions, assertions and implications resulting from a given concept or model generates simplifications and becomes the reason of inconsistencies in “didactic thinking” and acting.

The purpose of this article is an attempt to provide justification for the claim about the absolutely theoretized character of considerations (of each type) in the field of education theory. As a consequence, I also put forward a thesis according to which we can not coherently and consistently use concepts such as *knowledge* and *learning* “beyond” the paradigmatic context (understood here as a specific theoretical model).

Adam Mickiewicz University Press, pp. 61-69
ISSN 2300-0422. DOI 10.14746/kse.2018.14.5

The constructivist educational model encounters various problems, often resulting from the heterogeneity and at the same time the multiplicity of its interpretations. World literature is abundant in various types of constructivism (although “Polish didactics” usually distinguishes two, one can say basic types: cognitive and social; the first inspired by the psychology of J. Piaget, the second by L. Wygotski). The repertoire of available varieties

of constructivism is much richer. D.C. Philips distinguishes six varieties of constructivism, noting that it is not a complete list. The division proposed by him relates to such names as Immanuel Kant, John Dewey, Jean Piaget, Thomas Kuhn, Ernst von Glasersfeld, Linda Alcoff and Elizabeth Potter (Philips, 1995: 6). A slightly different division was proposed by D. R. Geelan in his article *Epistemological Anarchy and the Many Forms of Constructivism* (Geelan, 1997). He also distinguishes six forms of constructivism, however, he applies a different criterion of demarcation, which results in a different division. Geelan distinguishes the so-called personal constructivism based on Kelly and Piaget, Glasersfeld's radical constructivism, Salomon's social constructivism, Gergen's social aconstructivism, Taylor's critical constructivism and Cobern's contextual constructivism. His approach clearly shows the division into *social – personal and objective – relative*, justified in the case of constructivism (Geelan, 1997: 20).

I

Regardless of the above distinctions, constructivism should be seen as an interdisciplinary project, encompassing numerous research, sometimes very different in terms of methodology and subject matter, in various scientific disciplines, from the humanities, i.e. philosophy, history, literature studies, through social – psychology, pedagogy, sociology, to mathematics, computer science, etc. From this multitude and diversity, a wide range of issues emerges, including a great variety of fields of interest associated with particular scientific disciplines (cf. Moroz, 2015). From the point of view of didactics, it is not important how many types of constructivism can be distinguished or what are their characteristics, however, these issues are not entirely irrelevant or of little importance for didactic decisions. Sometimes it is believed that considerations that are too theoretical are unnecessary¹ and may be omitted without much harm. This approach is an expression of theoretical ignorance and is probably the result of a lack of orientation in the assumptions, theorems and implications of a given concept, which in turn leads to various kinds of errors, generates simplifications and causes inconsistencies in “didactic” thinking and action.

¹ It happens that *theoreticality* is treated as unnecessary (not only practice, but also empirical research) burden. It seems that not all proposers of such “understanding” of science are aware that its “theoretical reduction” deprives it of the possibility of making judgments (because it eliminates theoretical apparatus) about *reality* (however the latter is understood)

This constitutes the background for the issues discussed in the article, as the aim clearly refers to the knowledge of broad contexts of didactics, necessary, I believe, for a better understanding of basic phenomena and processes, such as *knowledge* or *learning*. The aim of this article is to provide a justification, be it “poor”, for the claim concerning the theoreticized nature of considerations (of any type) in the field of education theory. Consequently, I also put forward a thesis according to which we cannot coherently and consistently use concepts such as *knowledge* and *learning* “beyond” the paradigmatic context (understood here as a specific theoretical model).

II

As I have already mentioned, the excess of constructivist approaches creates great potential for interpretation, which inevitably leads to many misunderstandings. The sheer number of variants of constructivist thinking can provoke the question of the possibility of so many models of cognition based on a single fundamental thesis valid for each and every version of constructivism, while at the same time being a condition and criterion for their theoretical compatibility.

The thesis in question boils down to a seemingly trivial statement that *knowledge is a construct*. While it is a fundamental thesis for constructivism, its theoretical anchorage², from a didactic perspective does not seem to be sufficient. As soon as the indicated thesis is articulated, in-depth deliberations on its meaning often come to an end. It is considered that the thesis constructed in this way provides a satisfactory explanation of the fundamentals of a theory of education based on constructivism. Having in mind, however, that we function within the scope of science to a large extent “submerged in practice”, we cannot limit ourselves to a superficial exploration of the epistemological layer of constructivism (although it should be emphasized that it is essential). At this point we should ask a few insightful questions – what can the phrase “constructing knowledge” mean? Who or what constructs it? Can we talk about the construction as such? If not, what would it depend on? Answers to the above questions exist, but are not unambiguous. Even if we do not expect clear and unambiguous answers, we must ask questions.

² The available didactic literature usually provides a rather general explanation of the issue of “knowledge as a construct”, limiting itself to categories and explanations of (often classic) psychology and sociology of knowledge, usually also secondary studies are used.

For educators, it is important whether *knowledge* is a true, justified conviction³, a set of information, or perhaps *knowledge* does not exist, and “knowing” is just reacting to the our surroundings (according to the S-R behavioural scheme). These issues are of theoretical importance, which undoubtedly puts its stamp on what is no longer “just” a model, but a real action⁴. Following this path of thinking we have to ask about the learning process – what it actually is. It is difficult to answer this question without knowing the answer to the question: what is *knowledge*, or assuming that knowledge is an unspecified construct (suggested by selected authors). I do not consider these remarks as particularly revealing, however, despite their “ordinariness”, in didactic deliberations one rarely sees “more serious” references to broadly understood linguistic research, *cognitive science*, contemporary cognitive psychology, etc. This is where we can find many important concepts, significant from the point of view of the conducted didactic research, for example, contemporary models of the mind, which allow us to go beyond the classic (read: obsolete) division into the behavioural concept of the *Black Box* and the early-cognitive metaphor of the mind as a counting machine.

III

The issue of *knowledge*, and also – *cognition*, appears to be multi-layered and thus extremely complicated. Constructive analyses of the concept of *knowledge* “prove” that this indigenously philosophical issue can be solved in the area of sociology. Sometimes it is believed that this is possible by accentuating the so-called social creation of reality. In such an approach, “reality” loses its metaphysical (and therefore very subtle due to its philosophicality) sense, becoming a socially produced construct. This idea was discussed by A. Schütz who points out that the knowledge of an individual about the world (for Schütz it is the *world of everyday life*) is the basic instrument of organizing experience and in no way can it be understood as subjective knowledge (even though it is our individual mind that seems to be the basic, or perhaps even the only carrier of such knowledge).

³ I raised this issue in the article *What concept of knowledge is “necessary” for pedagogy?* arguing that the classical concept of knowledge, being unrecognisable, is at the same time not very “interesting” for the theorist of education (cf. Moroz, 2013).

⁴ What I call “real action” cannot, of course, be understood outside of the model. The description is always linguistically situated, hence my strong attachment to the “theory” that is, each and every time, exemplified in a model.

“The world of everyday life should be understood as an intersubjective world that existed long before our birth and was experienced and interpreted by others – our ancestors – as an organized world. Today, it is given to our experience and interpretation. The basis for any interpretation of the world is the pool of previous experiences, both our own and those passed on to us by parents and teachers, which, in the form of “cognitive knowledge”, serve as a frame of reference” (Schütz, 2008: 18).

Schütz also writes:

As long as the once established reference framework and a system of legitimate experiences of ourselves and others is working, and as long as the actions carried out under their direction provide the desired results, we trust these experiences (Schütz, 2008: 33).

Also P.L. Berger and T. Luckmann⁵, using sociological analyses, indicate that the society in which we live, as well as the language we speak, determines the scope and limits of our reality. Both sociologists do not undertake the subtle game of analytically defining the categories of *knowledge* and *reality* that are essential for their deliberations, but state:

For our needs it is enough to define “reality” as the property of such phenomena which we admit exist regardless of our will (we cannot “get rid of them on demand”) and knowledge as the certainty that given phenomena are real and have specific characteristics (Berger, Luckmann, 1983: 23).

Such a socio-cultural position is supported in Poland by A. Zybortowicz. In his opinion, “...the nature of knowledge is not determined by its object, but the social circumstances of the production and functioning of this knowledge”. (Zybortowicz, 1995: 12). *Knowledge* itself is understood very broadly, as socially shared beliefs (regardless of their social and epistemological status) (cf. Zybortowicz, 1995: 19). It may be somewhat surprising that despite the declaration on the social origin of knowledge and thus the conventional resolution of the issue of scientific rationality (and with it the concepts of knowledge, truth, justification, etc.), Zybortowicz underlines that it is possible to speak of different types of knowledge, depending

⁵ Inspired by Alfred Schütz, which they mention in the introduction to the book *Social Creation of Reality* (cf. Berger, Luckmann, 1983).

on the degree of its social determination. Thus, in “extreme” cases (mathematical knowledge), knowledge can be treated as free from social influences⁶.

However, regardless of the “troublesome”, from the point of view of representatives of social constructivism, status of knowledge generated by the so-called sciences, an assumption regarding the metaphysical nature of the world seems improbable. The reproduction of reality through language (even in a subtle version, taking into account an unobvious type of reference) creates considerable problems of interpretation and does not seem to constitute a rational explanation. It is worth noting that the constructive role of language in shaping experience was pointed out by French conventionalists more than a hundred years ago. Empirical solutions could not have taken place if it had not been for the language and its “findings”. There are no theories – according to Duhem’s conventionalism – that could be proved by experience, and their recognition depends exclusively on the researcher’s decision (Jedynak, 2007: 11-14). From the perspective of the goal formulated in this article, the thesis about the theoreticization of observation seems particularly “appealing”. It states that “...nothing can be observed without earlier expectations shaped by our theories” (Grobler, 2006: 70-71). Thus, the result of the adopted assumptions will be the content of the observation, which will ultimately affect the reactions of the observer to the surroundings. Such a holistic concept of science, nowadays represented and identified with W.V.O. Quine, has been accepted by Richard Rorty who states that it comes “...from the conviction that justification is not a matter of a special kind of relationship between ideas (or words) and objects, but a matter of exchange of views, a matter of social practice” (Rorty, 1994: 153).

It seems, therefore, that constructivism is also supported by the philosophy of science, which suggests that the experience (also scientific) is a certain convention that can be interpreted in terms of the accepted language. Our experience⁷ is possible thanks to conceptual cognition (perhaps not only, but it can be argued that it is the dominant type of cognition). One of the conditions for conceptual cognition, as Zybertowicz rightly observes, is social communication, which is dependent on consensus. The latter, in turn, depends neither on the nature of the language itself, nor on the metaphysical understanding of reality, nor on the characteristics of the human mind (Zybertowicz, 1995: 111). This finding is significant for our argument, because from such a perspective it is assumed that knowledge

⁶ It seems that this creates certain problems related to the explanation of the limited validity of the principle of determination of social *knowledge*. I will not develop this issue further, as it goes beyond the subject of the analysis undertaken in the article.

⁷ Both scientific and colloquial, common-sense.

can only be constructed in a certain culturally defined cognitive system. Thus, the latter cannot be reduced to individual, individualised cognitive actions – on the contrary, culture “itself”, as it were, creates a fundamental context for the constructed knowledge. Therefore, it is impossible to adopt a cognitively “privileged” position – situated outside any discourse. When issuing any judgments, based on any perceptions or observations, we always do it from a specific point of view (we can call it a “cognitive perspective”, “cognitive context”, “language”, “paradigm”, “discourse”) which, depending on the term or name used, is a conglomerate of signs entering into relations established by convention, creating a communication system (language). The latter constitutes an ontological perspective “invisible from other positions”, and such systems may be quite numerous (Moroz, 2014: 21-23).

In such a perspective, the issue of learning is almost naturally inscribed in the linguistic and social context. In constructivism (of the type I know), no one will “seriously” proclaim the concept of “private worlds” (if only because, as Wittgenstein (2012) has shown, *private language* is not possible⁸). As J. Bruner observes:

The construction of reality is a product of creating meaning, shaped by traditions and cultural tools of ways of thinking. In this sense, education should be seen as helping young people to learn to use tools to create meaning and construct reality in order to better adapt to the world in which they live and to start an effective process of its modification according to their own requirements. Education can even be understood as related to the improvement of architects or builders. (Bruner, 2010: 37-38).

Jeremy Bruner’s education concept lies somewhere between an extremely sociological and cognitive approach. His culturalism clearly refers to research on mind and language⁹. In *Education Culture*, he points out that the transfer of knowledge and skills requires group interaction, and that “...through interaction with other children, children learn about culture and the proper ways of conceptualizing the world” (Bruner, 2010: 38). However, it is not language itself that is the fundamental motor of cognition, but inter-subjectivity (typical of any kind of constructivism), understood as the human capacity to understand the minds of others.

Therefore, it seems that one of the most important issues that constructivism must raise (especially the didactic one) is our ability to read “other minds”. So the question – what is knowledge and learning? may be answered within the framework of constructivism, not only by referring to epistemological and sociological

⁸ And it is the language that determines our cognitive field, creating the ontology we know (this claim is so subtle that it should be handled with due caution).

⁹ It should be noted that Bruner’s early work was strongly rooted in a cognitive approach (cf. Bruner, 1978), but in his latest book (cf. Bruner, 2010) it clearly took on a social character.

assumptions, but also by pointing to the process of its formation, which requires the involvement of cognitive sciences. In my opinion, constructivism is less interested in knowledge as a product, focusing primarily on its functional aspect. Therefore, it is not good, especially for constructivism, to claim that the thesis on the constructive character of knowledge is a strictly philosophical creation. One can legitimately claim that the basic constructivist thesis is grounded and justified primarily in the sciences of cognition. This is a very interesting and complicated issue, as it requires the provision of many examples from the field of cognitive sciences, for which unfortunately there is no place in this article.

The inability to fit into the theoretical model of describing phenomena of scientific provenience is a problem for teachers (and sometimes even researchers) at all levels of institutionalised education (including the academic level). In such cases, thinking about education usually results from a lack of orientation in interdisciplinary issues related to the theory of education. Incomprehension of its broad contexts produces a very harmful, theoretically impoverished educational practice, leading to the almost complete elimination of an interpretive model of didactics. The awareness of the theoreticization of, inter alia, categories of *knowledge* and *learning* (i.e. understanding that they gain specific meaning only in a given language of learning) creates opportunities for fully coherent thinking and acting in a constructivist model of education, which may manifest itself, e.g. in a proper understanding of the active attitude of learners, as well as the non-interventional role of the teacher functioning in the indicated model of education.

Literature

- Berger P.L., Luckmann T. (1983). *Spoleczne tworzenie rzeczywistosci*. Przeł. J. Niżnik. Warszawa.
- Bruner J. (1978). *Poza dostarczone informacje*. Przeł. B. Mroziak. Warszawa.
- Bruner J. (2010). *Kultura edukacji*. Przeł. T. Brzostowska-Tereszkiewicz. Kraków.
- Geelan D.R. (1997). *Epistemological anarchy and the many forms of constructivism*. "Science and Education" vol. 6(1). s. 15–28.
- Grobler A. (2006). *Metodologia nauk*. Kraków.
- Jedynak A. (2007). *Doświadczenie i język*. Warszawa.
- Moroz J. (2013). *Jaka koncepcja wiedzy jest „potrzebna” pedagogice?* „Kwartalnik Pedagogiczny” nr 2, s. 5–20.
- Moroz J. (2014). *Czy relatywista może być pirezjastą?* „Parezja: czasopismo Forum Młodych Pedagogów przy Komitecie Nauk Pedagogicznych PAN” nr 1, s. 21–33.

- Moroż J. (2015). *Rzeczywistość – poznanie – edukacja w kontekście radykalnego konstruktywizmu Ernsta von Glasersfelda*. „Kultura i Edukacja” nr 1(107). s. 71–89.
- Philips D.C. (1995). *The good, the bad, and the ugly: The many faces of constructivism*. “Educational Researcher” vol. 24, no. 7, s. 5–12.
- Rorty R. (1994). *Filozofia i zwierciadło natury*. Przeł. M. Szczubiałka. Warszawa.
- Schütz A. (2008). *O wielości rzeczywistości*. [W:] A. Schütz. *O wielości światów*. Przeł. B. Jabłońska. Kraków.
- Wittgenstein L. (2012). *Dociekania filozoficzne*. Przeł. B. Wolniewicz. Warszawa.
- Zybertowicz A. (1995). *Przemoc i poznanie: Studium z nie-klasycznej socjologii wiedzy*. Toruń.