

## Conceptual Metaphor in Educational Discourse

Eduard Vladimirovich Budaev<sup>1</sup>, Chudinov Anatoly Prokopievich<sup>2</sup>  
and Trubina Galina Filippovna<sup>2</sup>

<sup>1</sup>Russian State Vocational Pedagogical University, 620012,  
Sverdlovsk region, Ekaterinburg, Mechanical Engineering st., 11

<sup>2</sup>Ural State Pedagogical University, Prosp. Kosmonavtov, 26, Yekaterinburg, 620017

DOI: <http://dx.doi.org/10.13005/bbra/1698>

(Received: 20 December 2014; accepted: 27 January 2015)

**Studying the functions and types of metaphors in the educational discourse (pedagogical metaphorology) is a scientific direction, actively developed in North America, Europe and other regions. Such research is being conducted in Russia as well, but the results are little known abroad. This overview describes the major achievements of the Russian pedagogical metaphorology, differentiates its leading areas of interest, analyzes methods and heuristics. The conclusion describes the system of pedagogical metaphors being dependent on living conditions and educational system, the author's philosophy and personality, his views on education, on the collaboration of teachers, students and parents.**

**Key words:** Metaphor, education, pedagogic metaphor, student, teacher, school, training.

Conceptual metaphor has always been used when discussing education problems. The arsenal of metaphors, which are the key concepts of pedagogical discourse, largely reflects the implicit intentions of a teacher, his real attitude to education, his desire to express his ideas figuratively and clearly. For example, A STUDENT may be metaphorically represented as a CLEAN BOARD/TABULARASA, a VESSEL, which *needs to be filled*, a SPONGE, *absorbing knowledge*, a FIELD *on which to grow crops*, a WHITE SHEET *that the educator fills*, SOFT CLAY, *a teacher works with*, a MOUNTAIN CLIMBER, *raising to the heights of knowledge*, a SWIMMER *in a rough sea*, the MYSTERY *of the seven seals*, a SOLDIER, *fighting with illiteracy*. Metaphorical expressions that use the metonymy notation have

similar nature: the SOUL of the STUDENT is filled with good feelings, the HEART of the STUDENT remembers the care.

It is important to emphasize that the pedagogical metaphors are often impossible to "translate" using definite terms; similarly, it is impossible to convey the meaning of artistic images using scientific formulas. In the studied cases, the metaphor does not just decorate the statement but reflects a particular way of thinking, a specific picture of pedagogical reality, its imagery model. It is even more impossible to convey the meaning of pedagogical metaphors with official-business (bureaucratic) words usage though it is unfortunately so typical of pedagogy bureaucrats. **Traditional (rhetorical) and cognitive research methods of studying educational metaphors**

The role of metaphor in educational discourse has long attracted the specialists' attention. Before the cognitive approach appeared, the study of metaphor was conducted mainly by using rhetorical techniques<sup>1-4</sup>. However, the interest in the issue increased significantly after

\* To whom all correspondence should be addressed.

the cognitive approach to metaphor was widely recognized<sup>5-15</sup>. Modern cognitive approach defines the pedagogical metaphorology as the scientific area, located at the intersection of education and cognitive research. The sphere of interests of pedagogic metaphorology is, on the one hand, using metaphor in teaching practice to optimize the interaction of the educational activity participants, and on the other hand, using metaphor in modeling the pedagogic worldview and its representation to future teachers and public.

The cognitive approach (G. Lakoff and M. Johnson, etc.) views a metaphor as the primary mental operation, as a way of understanding, outlining and explaining the world. People of teaching profession particularly often represent their activities metaphorically. A creatively working teacher not only expresses his thoughts by using metaphors, but also thinks by metaphors, creates a metaphorical picture of educational process<sup>16</sup>. Conceptual metaphors model reality by moving names from one realm to another, which allows promoting a new understanding. Thus, pedagogical metaphors organize the ideas in education sphere in a new way, offer a new interpretation of this sphere and, at the same time ensure the continuity of the pedagogical thinking. The metaphorical convey of the author's ideas helps people understand them (especially at the early stages of the pedagogical theory development), which contributes to their full comprehension by the members of the educational community.

Unlike the traditional rhetorical studies of pedagogical metaphors<sup>3,4</sup>, the modern publications are mainly related to two aspects of the metaphorical semiotics: cognitive semantics and pragmatics of metaphors. In the first case, the metaphor is seen as a reflection of the educational process participants' conceptual worldview, and the researchers' attention is focused on identifying the basic metaphors and their references. Pragmatically oriented research explores the metaphor as a means of effective impact on the subjects of education, enhancing the efficiency of the educational process. It is important to note that cognitive semantic study is in perspective focused on the practical use of results while the pragmatic research is impossible without a prior analysis of the cognitive structures, so delineation

is not always possible<sup>17</sup>.

Each innovative scientific theory produces its system of basic metaphors. In particular, technological metaphors are focused on informing, on adherence to the existing standards, on developing action methods according to the specified pattern. Creative metaphors have a different nature: they are focused on the development of creative activity. So using this or that image, the teacher accepts a certain perception of the world, which is realized in the learning/teaching process<sup>18</sup>. Within the framework of cognitive studies, considerable emphasis is made on the study of how the educational process participants conceptualize the process and its participants. Among the most famous works in this sphere, the publication of A. Sfard<sup>19</sup> can be named: it identified two main metaphors in present teaching sphere: acquisition metaphor and participation metaphor. The first metaphor is related to the concepts of pedagogical communication as a process of information transferring while the information itself is designed for students as a consumption product. The second metaphor is formed along with the formation of the interactionists' views on communication, and its usage is aimed at highlighting the students' active role in the educational process.

Researchers have repeatedly noted that the acquisition metaphor in different modifications dominates in both teachers and students' ideas of education<sup>20, 21</sup>. As K. Graham emphasizes<sup>22</sup>, the concept of "acquisition" has become so familiar in the headlines of reputable textbooks that students, teachers and researchers often don't notice that it's only a metaphor, which obscures the important aspects of the learning/teaching process<sup>23</sup>.

Within the frame of cognitive research, it is essential how the students metaphorically represent their teachers<sup>24, 25, 26</sup>. It is clear that the attitude of students to the studied subject and the educational process will be different depending on whether they see their instructor as a "commander of a confronting army", "a caring gardener" or "a sports coach".

Analysis of metaphors in the teacher's language can serve as a means of detecting hidden beliefs and opinions and is even regarded by experts as a kind of "lie detector". Thus, Susan Wallace analyzed the speech metaphors working

with teachers of six secondary schools in the United Kingdom, interviewed on curriculum and students. As the metaphoric analysis showed, teachers gave a lower estimate of students and professional activities in their schools than it was openly expressed. According to the author, analysis of metaphors in teachers' language can serve as an additional method of defining the education quality in a certain educational institution<sup>27</sup>.

The analysis of metaphoric students' representation of themselves is equally illustrating. For example, M. Bozlk<sup>28</sup> studied the metaphors, used by American students-freshmen in their self-representation as participants of the educational process. As it turned out, more than 90% of the metaphors were taken from such areas as "object", "animals" and "human", with the majority of metaphors accentuating the passive role of students in the educational process: a sponge, a pencil, a snail. Even the metaphors from the "human" group (for example, a student is a child who makes the first steps) do not always provide the students' high activity. Teachers are encouraged to discuss metaphors with students and foster their belief that education is a process they should control themselves. The challenge for teachers is to drive out the passive image of a sponge, absorbing knowledge, or of a child, who teachers must feed with information, and to replace them with more active educational activity images<sup>29</sup>.

Teachers can rely on images offered by other students. For example, among the analyzed corpus there were metaphors, emphasizing the students' autonomy<sup>30</sup>. For example, students are birds that are ready to fly, or businessmen looking for potentially useful information. This approach is prominently represented by a comprehensive study of the Israeli scholar Dan Inbara<sup>31</sup>, who collected and analyzed several thousand metaphorical images used by students and teachers for the education imagery. The researcher finds that many of the contradictions of education are associated with the dominance of different metaphorical images of teachers and students. If one attempts to create a generalized image of Israeli schools, you get quite a contradictory image of «a free educational prison».

As noted above, the study of pragmatic orientation not only focuses on the analysis of

cognitive representations, but also on finding certain solutions of many pedagogical problems. It is noted, that sustainable forms of reality reflection are based on mechanical memorization of little effect, while the use of metaphorical models contributes to the comprehension of the studied phenomena essence. The role of metaphors is especially important in describing abstract concepts. As special experiments showed, the use of metaphors helps students understand abstract concepts more than the literal description<sup>32</sup>, which is especially important in teaching young children<sup>33</sup>. However, experts often point to the fact that it is not sufficient to rely only on the students' knowledge foundation. Understanding metaphors should be specially trained<sup>34</sup>, especially in the teaching of such subjects as art<sup>35</sup> or psychoanalysis<sup>36</sup>.

Modern methods of identifying effective metaphors range from hypothetical deductive constructions to experiments done for long years of monitoring. The main purpose of these studies is to find metaphors or combination of metaphors, which would become the most effective way to explain some concepts and to teach certain courses and disciplines. For example, M. Osborne<sup>2</sup> recommends using three metaphors in training courses of public speech: "Student is an architect", "Student is a weaver", and "Student is a mountaineer." Metaphors are designed to overcome the typical students' fears associated with performances in front of an audience, change the a priori existing ideas about the aggressiveness of the audience, to comprehend the unclear processes of a speech preparation through the images of the familiar activities. The research conducted in California by Otto Santa Ana on the material of imagery signs for education problems in regional mass media is of considerable interest<sup>37</sup>. The researcher found out that in the US media uses three productive conceptual metaphors to characterize education. The first dominant metaphor is based on the model of 'SCHOOL is a FACTORY'. This image helps understand better the function of the school as an institution, enriching students' knowledge. The second dominant metaphor is a model 'LEARNING PLAN is a ROAD', which metaphorically represents the dynamic function of educational programs. The third dominant metaphor is based on the model

'SCHOOL is a RIVER'; it describes the patterns of students' adaptation to school. Santa Ana shows that pedagogical metaphors are closely linked to the dominant ideology. One of the leading American pedagogical metaphors is education as a business. This metaphor is designed to evaluate the quality of education in terms of profitability, rather than productivity. The metaphor of BUSINESS used for the American education conceptualization has been influencing teachers' work, as well as understanding the market by the American population.

#### **Russian studies of pedagogical metaphors**

It should be noted that the metaphoric nature of the pedagogical thinking is constantly emphasized both in publications that reflect the traditional Russian worldview and in those, reflecting the domestic practice of educational activities.

A successfully found metaphor facilitates the process of pedagogical communication greatly. This is well shown by E. N. Ilyin: "It was possible to write at the end of the essay or to say verbally *"you've stripped the thread"* and the author-addressee got it clearly: "one went too far", "one overdid it", "tried too hard... That's for the locksmith. The driver's work was commented differently: *"you switched the speed abruptly."* A crane operator's advice would be *"to adhere to the safety precautions"*. In short, the number of professions corresponds to the number of 'imagery' tips. Their effect sometimes amazed myself. Sometimes it needs a whole lesson to explain how to write an essay, to make an oral response, and there is no result. And then, there's a simple trick of association with the person's daily routine and no more explanations or boring lectures are needed» [38, p. 60-61].

Modern experts are studying in detail the place of metaphors in describing the socio-communicative characteristics of the educational process participants, in describing pedagogical styles (democratic, authoritarian and liberal) and the types of verbal interaction in the pedagogical discourse.

M. Y. Oleshkov rightly points it out that imaginative metaphors are the distinguishing sign of the humanistic pedagogy concepts and terminology. Within the frame of worldview "a lesson is a creative workshop, a teacher is a creator,

and an objective form of words should become the material for the talented pedagogue. In this context, the educational process is the "image moulding process", something like a sculpture. Lesson is somewhat a skeleton, clothed in the subject matter of the speech. Students are not just "connoisseurs and admirers, but "the accomplices" [39, p. 121]. The author then examines various aspects of the metaphors usage in the teachers' practice, emphasizing a particularly effectiveness of imagery representation of knowledge and at the same time warning against the excessive use of such representation. M. U. Oleshkov monograph describes the role of metaphors in the modern pedagogical discourse: the leading frames of pedagogical situations are described, genres and intentions of the pedagogical discourse are considered, verbal clichés are specified and the possibilities of structural-semantic and discourse analysis of pedagogical communication are compared<sup>40</sup>.

E.G. Kabachenko presented a cognitive analysis of metaphors in the modern pedagogical discourse in terms of metaphorization spheres and sources (the metaphor of construction, the metaphor of fire, the metaphor of a road, etc.)<sup>41, 42, 43</sup>.

Another important aspect of this study is to review the areas of metaphorization targets. The author shows the system of images that are used to represent concepts "*knowledge*", "*education*", "*evaluation*", "*lesson*", "*student*", "*teacher*", "*school*". In particular, for the representation of the "*education*" concept, the most commonly used metaphors are those from the source-domains of "Journey" (19.4% of the total number of recorded metaphorical representations of the concept), "House/construction" (12.2 %), "Manufacturing" (9.8%) and "The world of plants" (9.8%). The metaphorical representation of the concept of "*a student*" is characterized by the confrontation of two trends. The student, on the one hand, is represented as an object of influence; at this, his role in the process of formation is underestimated. On the other hand, he is a participant of interaction. His being the object to which the older generation transmits knowledge and experience, the recognition of the leading role of external factors is proven by the usage of production, fitomorphic, morbid metaphors and container metaphors. Recognition

of a student as an equal subject of pedagogical processes and the orientation of teaching on his identity self-realization are proven by using the metaphor of the spheres-sources “Realm”, “Journey”, “Finance”, “Art”. Basing on the analysis of the pedagogical discourse basic concepts metaphorical representation, E. G. Kabachenko outlined 12 dominant spheres-sources of metaphoric expansion: Travel, Production, War, Realm, Art, The World Of Plants, Construction, Human Body, Objects, Finance, Medicine, Food. These spheres-sources of metaphorical expansion are typical of national pedagogical discourse that attests to their universal nature, metaphorical unity of concept sphere “Education” and internal consistency among the dominant concepts “*knowledge*”, “*education*”, “*evaluation*”, “*lesson*”, “*student*”, “*teacher*”, “*school*”. The author comes to the important conclusion that the metaphors represent the values and professional position of this or that teacher. However, metaphors reflect the changing educational paradigm and social attitude at a given stage of development, historical origin of modern pedagogical discourse and the role of outstanding teachers of the past (A. S. Makarenko, N. K. Krupskaya, V. A. Sukhomlynsky, K. D. Ushinskiy, Sh. A. Amonashvili, etc.) in its development<sup>41, 42, 43</sup>. K.D. Ushinsky’s metaphors are also described in detail in O.N. Kondratieva’s article where she successfully uses the methods of cognitive linguistics and M.V. Pimenova’s ideas about the specifics of a person’s inside metaphorization specifics<sup>44</sup>.

The cognitive study of metaphor by the Kazakhstan scientists Z. K. Temirgazina and G. K. Abzuldinova is of considerable interest. The authors emphasize that the existing metaphorical models represent the conceptual, not language structures. Accordingly, the “metaphorical use of the term sphere-source on a cognitive level appears as a process of attributing some of its traits to another notion, belonging to another category, which is defined as the target-sphere “[45, p. 320]. Within this framework, four metaphorical models are considered, in which sphere-source is the cognitive fields “Journey”, “Light”, “Agriculture”, “Shaping”.

In each of these basic models there are several submodels, representing the most typical

frequent variations of conceptual metaphors. For example, study, learning process is often metaphorically referred to as a journey. Thus, the student is compared to a traveler who can move from one level of education to another, to fall behind, to have weaknesses, whom you can speed up, drag by the ears or take in tow. Another model is to compare learning to a lighting, enlightenment, light. Accordingly, ignorance is figuratively shown as darkness. Training in Russian and other languages is often metaphorically referred to as giving the object the desired shape. In this sense, such concepts as *to sculpt*, *to shape*, *to sand* are used. The image of the teacher often appears in the form of a knowledge seeds sower who works in the field of education.

The specifics of pedagogical metaphors, their functions in the pedagogical discourse and their pragmatic features and historical roots are described in the publication of some other Russian experts<sup>46-49</sup>. It is noteworthy that among the authors discussed in this article both teachers and linguists are met, which reflects the cross-cutting nature of the problem.

## CONCLUSION

Concluding the discussion of the modern pedagogic metaphor phenomenon, it is important to note that it has the linguo-cultural nature and cannot be considered in isolation from the social life of our country and especially its education system, in isolation from its traditions and consciousness of the Russian people. The human factor is particularly important here, as well as the author’s personality who is the creator of the metaphor, and its addressee.

In the modern study of pedagogical metaphors two directions are distinctly allocated: a rhetorical and a cognitive one, which has a leading position in the recent decades. Recognizing the leading role of the European and North-American specialists in the pedagogic metaphor, it is important to note that such studies are rapidly developing in Russia. These studies further examine the interrelationship of pedagogical theory and its inherent metaphors, metaphorical images dependence on national traditions, on the text genre, the author’s personality and other factors.

Of course, the present review covered not



all aspects of the metaphor analysis in the pedagogical discourse. Unfortunately, we have not been able to mention all of the researches on this problem. We haven't managed to pay enough attention to the studies on psycho-linguistic issues of gifted students' understanding of metaphors, on neuro-linguistic characteristics of metaphors perception by the students with various types of mental disorders, on the methodological problems of metaphors analysis in learning foreign languages process, on metaphors in academic pedagogical discourse and on other aspects.

However, this overview represents the interest, which the phenomenon of metaphors arises in pedagogical communication, the role that metaphor as a cognitive mechanism plays in the educational process, and the place that this issue takes in education, metaphorology and cognitive study. All these problems are to be carefully considered in the future.

The review authors express their gratitude to their colleagues at the Ural metaphor studying school [50] L. A. Alekseeva, S.L. Mishlanaya, M.B. Voroshilova, O.N. Kondratieva, whose valuable suggestions have helped improve the study. We'd like to thank Russian humanitarian fund, which provided the financial assistance in carrying out the study. (Draft 14-04-00268 "Political Linguistics: problems, methodologies, research aspects and prospects of this scientific sphere development").

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