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**DIALECTICAL ANALYSIS AND SYNTHESIS IN
MULTICULTURAL EDUCATION**

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Abstract

In this article, «multicultural education» means education in a multicultural world and acquaintance of pupils with different ways of world exploration and information processing; that is natural and necessary in the multinational and multi-religious groups. The authors have analyzed the textbooks for grades 1- 4 of one of the most common in the Russian educational systems in order to identify the possibilities different school subjects have to develop the mental operations of analysis and synthesis. The authors pay special attention to literature, which promotes the development of elements of dialectical thought, namely, the ability to determine the subject matter in opposite directions and find their common ground. This is even more important since the literature helps pupils to discover the laws of man's inner world, the world of the soul. Literature, studied dialectically, allows pupils, firstly, to complete the process of their own civilian self-determination successfully and, secondly, to acquire practical experience in resolving interpersonal conflicts gradually.

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1. Introduction

Dialectical thinking involves the detachment of a pair of essential opposites and the finding of mediation of contradiction, that leads a person to discovery, creative solution (Belolutsкая, 2006). We understand the dialectical thinking as the ability to operate with opposites; it becomes extremely important under the conditions of global crisis, worsening conditions in many ethnic and religious conflicts.



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Dialectically-minded people tend to avoid conflict, to seek a reasonable compromise, the very golden mean, without which, it seems, we cannot live nowadays. The ancient Greek philosopher, Plato, said that «conflict is a necessary condition that causes the soul to meditate». Plato uses this educational device – provoking the reader through the presentation of opposing arguments (Kraut, 2015).

Nicolas of Cusa (1401-1464), Cardinal and Bishop of Brixen, the papal legate in Germany gave a definition: «Dialectics is the doctrine of the combination of opposites». His first proposal is that God is the «coincidence of opposites» (Miller, 2015). He proved the unity of all religions. He considered, as wide as possible, the implementation of peace and harmony to be the most important thing, despite the objective differences of opinions. In his philosophy, he developed an idea of religious tolerance quite unusual for that time.

The great German philosopher, Georg Wilhelm Friedrich Hegel (1770-1831), first divided empirical thinking from a dialectical one. Empirical thinking – is only the registration and description of the results of sensory experience. Dialectical thinking – is the understanding of essence of internal laws of development of any object. G.V. Hegel – professor of philosophy at the universities of Heidelberg and Berlin – considered himself a Christian, but tried to synthesize the ancient Greek philosophy and Christianity, ideas of Kant and the French Revolution, placing the philosophy above religion and poetry. Dialectics, according to Hegel, was the form (or method or schema) of thought that included the process both of elucidating contradictions and of concretely resolving them in the corpus of a higher and more profound stage of rational understanding of the same object, on the way towards further investigation of the essence of the matter (Ilyenkov, 1977, 121.)

The psychology of scientific papers related to the problems of thinking - this is primarily the work of Piaget. Already in the early works Piaget studied such properties of child's intelligence associated with dialectical thinking that insensitivity to contradictions and understanding of causality (Piaget, 1941). Piaget showed how the interaction of different (opposing) viewpoints stimulates mental activity of the child: to learn how to talk, it is necessary that you and others have established relationships of simultaneous differentiation and reciprocity that characterize the coordination of viewpoints (Nepomnyashchaya 1964, 371). Piaget connects the ability to relate opposing viewpoints with the processes of decentration, socialization and, consequently, with the development of theoretical thinking. One of his last works was directly devoted to the development of the elementary forms of the dialectic of children (Piaget, 1980).

The most important question for us is about the age at which a child is ready for the development of dialectical thinking. According to Piaget, one should answer this question individually in each case: one can observe a decrease or increase of the average chronological age of this or that stage occurrence, depending on the wealth or poverty of the child's activity, his/her spontaneous experience, school or cultural environment (Obukhov, 1998, 173).

Russian psychologists, in particular Zaporozhets, disagreed with Piaget's statements about self-centeredness of the child of preschool age and his/her fundamental inability to stand up to someone else's point of view. They already found out in preschool childhood the beginnings of a theoretical attitude to the subject, theoretical activity, on the basis of which the formation of the causal thinking is possible (Zaporozhets &Elkonin, 1964).

The studies of Nikolay Veraksa convincingly prove the «unity of thought mechanisms of creativity of preschool children and adults, eminent scientists, inventors, poets, politicians. Understanding the dialectical

logic as a special form of thinking allows you to discuss the dialectical transformation not only conceptually but also on the figurative level» (Veraksa, 2006). According to Veraksa, at the age of seven years, about 30% of untrained children give answers in stable complex representations, characteristic for dialectical thinking. The results of the children, who have passed through a short special training, have improved twice. It is obvious that the formation of dialectical thinking is in the zone of proximal development for the majority of first-graders.

The scientific school of Veraksa successfully developed topical aspects of the formation of dialectical thinking of all age pupils, especially pre-school ones. In the basis of all these studies lies the cultural-historical theory of personality development of Vygotsky (Shiyan, 2011), Leontiev and Luria (Chernokova, 2009). The methodological basis are the works of famous Russian philosopher and dialectic Ilyenkov (1997). Veraksa's school disclosed structural features of dialectical thinking, the relationship of dialectical and symbolic (Veraksa, 2013), defined the categorical status of the subject of culture in psychology (Bayanova, 2012). The conclusion of researchers is clear: the mastery of operations of dialectical thinking is an important factor in the success of children in their further education and future adult life (Belolutsкая, 2006).

2. Problem Statement

The role of dialectical thinking is great especially in shaping the morals of the individual and the society as a whole. Dialectical thinking reveals the «other world» to the person, invites him to a dialogue. The recognition of the multiplicity of points of view eliminates the excessive categorical and self-confidence, «the dialogue of cultures logic is the logic of doubt» (Bibler&Akhutina, 2010, 659). Dialectical thinking includes everyone in a dialogue of such positions that initially seem incompatible, while the ability to analyze the contradictory situation and get out of it can prevent many conflicts and reduce social tensions.

3. Research Questions

3.1. Elements of dialectical thinking in the content of Russian textbooks for primary schools

How does the content of the most common in the Russian educational system contributes to the formation of dialectical thinking?

Dialectical method – is the movement of thought through the analysis of opposites to their synthesis. So, to take a step to the dialectical thinking means to find inner unity of opposites, where one contradiction can not be separated from another. Objective of the stage I of the research is to assess the content of primary education in the educational system «Russian School» in terms of the formation of dialectical thinking elements (the ability to identify the opposites and the ability to see their mutual dependence).

Analysis of opposites by means of «The World around» for the second grade showed that the training material is based precisely on the opposition: city-village, the nature and the man-made world, wildlife and inanimate nature, wild and cultivated plants, wild and domestic animals, edible and inedible mushrooms etc. The study of «The World around» in grades 1-2 is produced by the decomposition of the world into its components, which are often diametrically opposed to each other, mutually exclusive.

By the 3rd grade, the child's thinking is entering into a new phase - a phase of understanding relationships, and a textbook responds to it. Synthesis of opposites by means of «The World around» (Grade 3):

- industry first provides farming with techniques, and then processes the harvest;
- children eventually become parents, parents were children some time ago;
- how looks the Earth from space;
- the Earth through the eyes of an astronomer, geologist, historian;
- the theme «The Great circle of life»;
- the theme «The sun, the plants and we are with you».

In the textbooks of the Russian language, grammatical categories are often presented as polar, but only in the grades 1-2: monosemantic and polysemantic words, relative and opposite, own and common nouns, direct and figurative meaning, synonyms and antonyms, proverbs with an opposite meaning. The only opposite, that can be met in textbooks of 3rd and 4th grades, is a dictionary of antonyms, located only on one of the last pages of the textbook.

One of the tests for verifying a dialectical thinking begins with the words: «What can be at the same time ...?» for example good and evil? About 30% of 6-7 year-old children are able to call such things as: the white nights are simultaneously dark and light, the apple on the table is at the same time alive and dead. A textbook of the Russian language does not offer children such questions. The proverbs published in them fix firmly the opposites on different poles. It formed an idea of the fundamental incompatibility of opposites.

But is this right? Is, for example, bitter sweet impossible for a third grade pupil to understand? Is it rare for children to differently estimate the same TV program?

In the anthology of «Literary reading» there examples of fiction with a rich potential for the development of dialectical thinking. For example, Pushkin's creativity is an amazing example of real dialectic. Already in the first line of the poem «The Winter Morning», there are two extreme opposites - frost and sun, cold and heat – that merged into a single concept of «a wonderful day.» And it seems that this connection is not possible, it is akin to the real miracle – hence the epithet «wonderful!» Isn't that a sample of this harmony, this synthesis of opposites?

But children are offered to evaluate only each picture individually. But here a brilliant problem question can be formulated: «What is, actually, miraculous in this picture? » And bring the kids to a surprising discovery: opposites are attracted, and their connection can be very interesting.

However, in practice, such questions and tasks are hardly ever offered to pupils.

5. Research Methods

We carried out a survey of 30 pupils of the gymnasium №96 in Kazan. Pupils of the 2nd grade (8-9 years old) were offered the task to combine opposites. On the first question (Who or what can be both good and evil? When?) Such groups of responses were received: a word (when thought that said well but actually hurts somebody); a magician (he was asked about something good but he accidentally messed up); an animal, a dog, a hedgehog (when it protects cubs or hosts); a person (he/she seems to be evil but good in the soul); a father, a mother, a teacher (when they educate children); an actor (who plays the bad

character but is a good person); a sage (with different people, he/ she is different); fire, electric wire, socket; Baba Yaga (sometimes she helps the hero and sometimes harms); Bag of Bones.

The last two answers cannot be accepted as appropriate answers, since these fabulous characters are good or evil, rather than simultaneously in different tales. In addition, one pupil did not write anything. Thus, only 5 pupils (16.7%) could not name something both good and evil. 83.3% of second graders coped with the task.

The second question (what may be dark and light?)

We obtained the following groups of responses: space (very dark but is illuminated by many stars); the moon (from different sides is different, shines but on the Earth is still the night); a room (there are bright wallpaper but it is still dark); a pencil (on a light piece of paper it will be dark and on the dark paper is light); sky (when it is dawn); Sonya Blade (from the game Mortal Kombat); a window (when you look from the outside at night, it is light and inside the room it is dark); a light (when it's shining but has little intensity); a street (with the lights at night); a day (gloomy but still is not the night); a shadow; a black-and-white picture, figure, toy dog; clouds; the sun; a blue color; a ball; a zebra.

The last six responses (11 pupils, 36.7%) cannot be considered valid, as they mean objects, which alternate dark and light, and do not attend simultaneously. But the rest of the answers (63.3%) demonstrated a clear willingness of 8-9-year-old children to recognize the ambivalence of objects, natural phenomena, fictional characters. Many pupils are able to, without visual support, that is, without having the object before their eyes, look at the object from different points of view, that is extremely important for dialectical thinking.

On the third question (what can be both alive and dead?), the following groups of responses were obtained :a dream (you do not believe in it but it still lives in you); a river, sea (moving, talking, may die if you do not take care of them); everything, if it is almost dead; Bag of Bones; water (it is not alive, but there is no life without it); a robot (a person thinks that he/she controls the robot, but it has already become independent); plants: trees, flowers; half of a leaf has withered and the other one has not; soul; a vampire; a man when pretending to be dead; animals; nature, the sun.

Only three of the last answers are not correct - as 6 pupils answered (20%). The remaining 80% found the ability to understand the procedurality, development, internal movement, variability. Very indicative in this type of answers are «almost dead», «still alive». Many pupils show uncertainty in their fullness (or in total human) knowledge of plants and water, which do not have all the features of a living creature, as animals or humans, but to call them dead is also impossible. So, it is with robots: whether the designer will be able to understand in time that his/her machine crossed the line and ceased to be an enervated piece of iron?

Thus, at an average, 75.5% of the second grade pupils were able to, without preliminary preparation, call objects and phenomena, which simultaneously contain contradictory properties or quality.

5.1. Concept of the opposites by means of folk tales

On the lessons of literary reading, the second grade pupils firmly learn that one of the hallmarks of the folk tale is a division of the characters into positive and negative. In the fairy tale, good always fights with evil and wins. Positive images: wonderful, tender, kind, gentle, slim, graceful. Negative images: ugly, angry, artful,

jealous, lazy. Any ambiguity in the analysis of the fairy tale, of course, is not even supposed to be. So, we concluded that dialectical thinking cannot be formed while reading folk stories. Binary thinking of such type as «positive or negative» is organic for a fairy tale genre.

5.2. Characteristics of the hero of the authorial literature

But such thinking is already not enough for the authorial literature. In the discussion of the authorial literary, such uniqueness of estimation provokes an internal protest in qualified readers: either the author wrote something like a fairy tale, or we do not understand anything in his/her works. The wonderful psychologist, Vygotsky in «Psychology of Art» showed, how primitively and flatly readers understood, for example, the fable of Krylov «The Ant and the Grasshopper»: the ant is definitely bad, but the grasshopper is definitely good (Vygotsky, 2008).

Perfection of Krylov's fables is in the truth of the characters, the inability to reduce the meaning of the work to the one plane moral. The author shows the juxtaposed characters deeply, in the whole volume of their internal contradictions.

The 3rd grade textbook offers the fable «The Crow and the Fox». Let us ask pupils the problematic question: «Who does Krylov condemn, and who does he write about with sympathy?» This question is usual for pupils, so at first it seems very easy. They argue on the basis of their personal experience and life preferences. But soon, they realize that it's impossible to divide the characters into usual positive and negative ones.

At the lesson, there are always defenders of the Crow as well as the Fox. Competent debate is possible here because both sides are equally right. On the one hand, the Fox is a cunning liar, and the Crow is good-natured, simple-minded and trusting. On the other hand, the Crow is vain, and the Fox just very cleverly took advantage of this weakness. Who is right? To resolve this dispute, it is necessary to see the situation from both points of view, that is, to understand the truth (and lie) of both heroines.

After this situation, the Crow must change: become smarter, more cautious, self-critical - if it does not want to die from hunger. It turns out that the Fox is a real, though severe, life teacher for the Crow.

The textbook offers to see the Fox and the Crow as equally negative characters. For many younger schoolchildren, the absence of a positive character is very unusual and strange, and that both sides are guilty in the conflict. But only this kind of fables reading leads pupils to a three-dimensional understanding of characters and becomes the next step in their development.

5.3. Empirical thinking – linear or flat, dialectical thinking – volumetric

Becoming familiar with the opposites and not considering the situation in which they are combined – it means to remain within the linear thinking: black-white, good-bad. Sometimes, a linear thinking develops to a planar one when, except one opposing axis, appears a second one. For example, not only black and white, but also high-low. But the two axes are not sufficient for a complete picture. A person needs a three-dimensional image.

Two-dimensional image gives only a general idea about the subject - its shadow. But the shadow can be deceptive. In such examples, children understand that it's not enough to get a complete picture from one point of view. It is necessary to change the angle of view or position. Volumetric, stereoscopic image is three-dimensional. To see something volumetric - that means to see from different points of view, by different eyes.

But younger schoolchildren lack of experience and knowledge about the characters and psychological types. They need substitutes that in a figurative way would allow younger schoolchildren to determine the viewpoint.

«Multidimensionality is the characteristic of thinking that enables a person to analyze the same object at the intersection of different structural relationships that provides variability of transformation of a contradictory situation» (Belolutsкая 2015, 33).

5.4. Elementary concepts of opposite types

We have found images of such substitutes in the animated series «Smeshariki». It presents a variety of characters, and, therefore, different points of view of the world. For example, we have formulated the question: «How would Nyusha describe an iceberg? » The pupils replied childishly: shiny, white, cold, sparkling. And how would Kar-Karych describe the iceberg? » And the pupils' answers were almost as those of an adult: «A huge block of ice, which only slightly raises above the water».

«Smeshariki» in the visual-figured form have introduced modern schoolchildren to different types of thinking. Barash is always a loving poet, a romantic and a dreamer. Sovunya is a chef, a healer, a nurse and an athlete. Losyash is a scientist, a materialist, and a Nobel Prize winner. The heroes of this series in different series manifest themselves in different ways. But each of them has a distinct dominant in the character. And it allows us to use these images as an expression of certain attitudes, «points of view». The difference of these viewpoints pupils clearly understand.

The 3rd Grade textbook offers pupils to characterize the fairy tale heroine of Garshin's «The Frog-traveler». Pupils are offered a choice of words-assessments: curious, clever, courageous, resourceful, boastful, inventive, talkative, decisive, careful, cheerful, resilient. Positive characteristics are alternated with the negative ones, that is, of course, very good. It is bad that all these estimates are offered to children in the ready-for-use form.

We offered pupils to think who from Smeshariki would like the Frog-traveler, and who would not. That is to look at the heroine from different viewpoints. Children easily determine: the Frog is very close to Krosh by its opportunism and thirst for adventure. It is also easily leads others. It is as dreamy and talkative as Nyusha. Pin would praise it for its resourcefulness.

Hedgehog would not have approved of a terrible risk, which the Frog took, because the Hedgehog is a homebody and a demure little thing. He never boasts in its achievements. But Barash would probably have written an interesting story about the Frog, because it has seen something more than only the swamp. Pupils' answers in total comprised a versatile, volumetric and internally contradictory image. And it is most important that pupils have done it in a self-reading activity.

6. Findings

Literary reading differs from all other school subjects by means of offering pupils chance to reflect on the issues of human inner life, the problems of personal nature. These lessons involve the primary school pupils in active discussion of characters and relationships. This activity helps children to understand other people, teach them to be tolerant to the peculiarities of others.

7. Conclusion

«The psyche of a human—is a constant search and the dialectic of each search is that the seeker does not know what he will find» - in these words of Davydov (1996), the connection of dialectical thought and schools is revealed. The ability to see an object as a unity of contradictions and the need to discover this unity —is the basis of theoretical consciousness, the basis of creativity and research. The inner inherent contradictions of the subject give rise to a disputing way of thinking «and the moment of discussion is mandatory in educational activity» (ibid, 58).

Answering questions about the age restrictions, Davydov stated: «... six-year children can freely work on our materials» (Davydov, 1996), that is, according to the laws of theoretical reasoning. It is exactly «in the primary school age a child needs to master the basics of theoretical consciousness, thinking first of all» (ibid, 81), because for preschoolers (earlier period), the main thing is a game and the assimilation of ready knowledge, and for adolescents (later period) communication becomes a priority. Our research has shown that the second-grade pupils are ready to acquire the dialectical method, as they are able to see the subject of discussions from different/ opposing points of view and to explain the observed difference in those views.

This also applies to a specific character of art, as a difference of interpretation of art. The outstanding Soviet philosopher, Ilyenkov, speaking about the development of the personality, attached a special role in this case to art which develops the productive imagination and human mind (Osipov 2013). «Schools should teach thinking», —stressed Ilyenkov, because only productive thinking is the basis of true science and true art, and the value detected by them - truth and beauty - are universal characteristics, attributes of eternal and unified reality (Kochanowski & Yakovlev, 2011, ch. 6, p. 9).

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