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ON DIAGNOSTIC SIGNIFICANCE OF TEST INSTRUCTION

Abstract. The paper deals with the use of verbal instruction in psycho-diagnostics of children with special educational needs, ways and methods of its adaptation, and the difficulties of standardization of testing procedures in special psychology.

In Russian psycho-diagnostics, L. S. Vygotskiy's conception about primary and secondary developmental disorders, as well as the subsequent conceptions about specific regularities of psychological development, are practically disregarded. Foreign psychologists know little about them. This fact results is the lack of understanding peculiar difficulties of children with special educational needs in carrying out diagnostic tasks. There is not a single Russian psycho-diagnostics handbook where the problem of verbal instruction as an important part of a diagnostic task is discussed. The authors found out that this problem is mentioned in only one handbook by foreign specialists. But even this indisputable advantage is rendered innocuous by an illogical recommendation to use standardized tests. It is obvious that even among special psychologists there dominates an opinion according to which the verbal utterance is similar to an absolutely transparent glass plate: you can see absolutely everything behind it.

The given paper considers various ways and methods of adaptation of instruction and suggests a system of step by step adaptation of the verbal text to the comprehension abilities of the child. Theoretical analyses and description of empirical experience demonstrate, in the first place, possibilities of unification or even standardization of the text of verbal instruction, and, in the second place, the limited nature of possibility of its presentation.

Keywords: psycho-diagnostics, children with special educational needs, verbal instruction, adaptation, speech genre.

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Strange as it may seem, diagnostics of psychological activity that gave birth to a whole branch of psychological theory and practice does not attract the attention of leading authorities in this field. This fact is illustrated by the minimal place (or, more often, no place at all) allotted to special psycho-diagnostics in diagnostic handbooks of both Russian and foreign origin.

Thus, the classical book by A. Anastazi (1982) [1] touches upon only the problem of adaptation of standardized intelligence tests for persons with analyzer dysfunctions. The same as other authors analyzing developmental disorders diagnostics, A. Anastazi states that in the field of diagnostics of persons with psycho-physical development disorders (or, according to the new international terminology, persons with disabilities) there are many unresolved problems; but he does not go beyond stating this fact. Russian handbooks in psycho-diagnostics absolutely ignore these problems [4; 11; 5, etc.].

"Foundations of Psycho-diagnostics" edited by A. G. Shmelev is the only exception: it has a corresponding chapter. The specificity of developmental disorders diagnostics received no coverage in the handbooks by foreign specialist working in the field of impaired development [23; 21; 25].

One should think that this fact is connected with insufficient knowledge and lack of understanding of the meaning and effect of specific regularities of impaired psychological development. Inadequate application of knowledge of specific regularities of impaired psychological development is also characteristic of domestic research in the field of special psycho-diagnostics. It is only recently that a new conception of developmental disorders diagnostics based on incorporation of experience of all previous propositions and a comparative approach has been suggested [17].

But psychological developmental

disorders diagnostics is an absolutely peculiar field due to both specific features of the studied contingent and the specificity of its tasks. Yet these tasks, as well as the question about the realization of the principles of developmental diagnostics, are also not duly addressed in manuals of diagnostics of developmental disorders written by specialists working in the field of defectology [2].

These manuals have been actually based up to now on the intuitive-empirical approach which was formed in international practice of diagnostics of developmental disorders; abroad, this approach coexists with standardized IQ tests. Separate research works and recommendations based on them are aimed at realization of the qualitative analysis and revealing potential possibilities, i.e. the zone of proximal development [13; 15]; but they have not been used in practical psycho-diagnostics up to now.

It should be noted that the questions of how to design the diagnostic process for studying developmental disorders, what concrete tasks are to be solved by special psychological diagnostics at each stage of the process, which methods and tasks are significant and which are not so important, and how to assess the observation results have hardly been discussed yet.

Attracting the attention of psychologists studying developmental disorders diagnostics to the above mentioned theoretical and theoretical-methodological questions we will dwell on one almost forgotten issue.

This issue becomes especially

urgent for diagnostics of developmental disorders which is connected with low speed of reception and processing information, limited volume of memory, and speech impairments of children with dysontogenesis. The scope of research includes the volume, semantic and linguistic content and the tempo of presentation of the text of verbal instruction. It is the analysis of this particular but important issue that our study is devoted to.

Each task of diagnostic procedures is presented with the help of an instruction which is actually a regular element of the diagnostic task (see: Teaching Aid "Special Psychology", 2009 or 2014, p. 17 or p. 29).

All manuals in general psycho-diagnostics state that if an instruction is properly understood the task may be completed; some manuals either contain no information about the instruction, or consider its lexical aspect only (in particular, when adapting foreign tests). It is obvious that even among special psychologists there dominates a "trivial" opinion about verbal utterances, including instructions, as reliable and safe means of transfer of information similar to an absolutely transparent glass plate: one can see absolutely everything behind it without seeing it.

No assumptions are expressed in relation to the fact that not only the content of the instruction, its semantics, vocabulary and grammar, but also the tempo of its presentation and volume influence its comprehension. And all these aspects are very important for the children with special educational needs. They may fail to understand the content of the task because of their speech underdevelopment and impairments of verbal expression [7; 8; 9; 10]. The same effect is produced by the slow reception and procession of information: as a result, a child with developmental disorders my fail to understand even a semantically simple instruction presented in an excessively quick tempo or exceeding his perception capacity per unit of time, which is always lower than in typically developing children.

Our conclusions about the current assumptions about the role of instruction are corroborated by almost universal absence of the term "instruction" in domestic psychological dictionaries. Only one dictionary by L. F. Burlachuk has the definition: "Instruction is a message describing how the tasks of the test are to be performed; it is presented in writing or orally, or through a computer and aimed at creation of adequate motivation and readiness of a person to do the test" [6, p. 163].

In psychological literature in psycho-diagnostics only the work of V. N. Druzhinin contains a definition of instruction: "Instruction is an outline of the task presented by the experimenter to those tested before the experiment. It includes (if necessary) an explanation of the essence of investigation, purpose and actions of the person tested while performing the tasks, of the tasks conditions, principles of evaluation of results, examples of solution of similar tasks, etc." [12, p. 305]. Defining instruction as one of the most important aspects of the work of experimenter V. N. Druzhin-

in, the same as L. F. Burlachuk, believes that the instruction should include motivation components – a statement that can hardly be accepted.

A clear-cut laconic definition of instruction is found in the translated psychological dictionary by A. Reber who interprets test instruction as "a set of directions for a subject of experiment" [18, p. 316].

It is quite evident that instruction presents a specific speech genre used in business, scientific and scientific-methodological literature; hence, while compiling or adapting instructions we are to abide by the rules of this genre.

Today, adaptation of instruction is the most popular way to adjust the test to the needs of the experiment. How are test instructions adapted?

Firstly, in most cases the purpose of adaptation is to transfer the author's variant of the instruction to those tested using the available possibilities of getting information. Thus, to those who can read the instruction is presented in the form of a written text printed on the test worksheet; for deaf people oral presentation is replaced by cards with printed text and/or dactyl or gesture speech; children with speech underdevelopment are offered picture supports, etc. Similar techniques are sometimes used during the whole period of diagnostics.

Secondly, improvement of comprehension of instruction is effected with the help of slower and often reiterated presentation by the experimenter, with pauses at the end of clauses of complex sentences, stress-ing the key words by intonation, etc. Taking into account the general specificity of impaired psychological development, and namely slow reception, comprehension and procession of information [16], this technique seems to be quite well-grounded. But it is unacceptable in classical testing.

A psychological test is defined, and practically is an objective standardized means of evaluation. Not only the content and method or presentation of the oral instruction, but also other components of the diagnostic procedure should be standardized. Such elements as speed of instructing, logical pauses, tone of the voice, voice modulations and non-verbal means should be taken into account. Repetition of instruction is not practiced as far as it does not only stimulate but also contains the moment of training which interferes with precise diagnostics. What is more, the above mentioned techniques do not often ensure full understanding the instruction by those tested with developmental impairments.

The third technique consists in cutting the volume of verbal instructions with the purpose of making them more suitable for comprehension by children with special communication needs and limited information volume capacity.

The fourth technique presupposes transformation of the instruction content by making it simpler without correlation with linguistic laws, i.e. the notions or terms difficult for understanding are replaced by the notions with the lower degree of generalization (for certain semantic decentration

to take place). Practically all experimenters try to follow this way sometimes simply explaining the author's instruction to the children, dropping out unclear words, without reference to linguistic, psycholinguistic or psychological data and the author's criteria. Teachers and parents intuitively use the same technique for explanation of complicated information.

The fifth technique consists in simplifying instruction grammatically, in bringing it closer to the level of linguistic development of those tested. In most cases this aim is achieved by division of complex sentences into several simple ones (connection by means of conjunctions, participles, etc. is replaced by intonational and logical correlation). Instruction begins to take the form of step-by-step directions. Speech etiquette formulae (*Please!; Thank you!* and the like) are removed. As far as this technique of work with instruction needs special knowledge, we can often register intuitive and random character of results. As a variant, a complex instruction may be subdivided into several simple ones which are presented one after another on completion (and, hence, understanding) of the previous ones. Alongside, repetition of parts of a complex instruction is also possible. In cases of difficulties, the teacher can use the technique of phased instruction, when the child is reminded a part of the instruction which is significant at the given stage of the test. These measures guarantee exact understanding of instruction and realization of the aim of activity, but, undoubtedly, the diagnostic effect of such an approach looses precision as the task is simplified in semantic and organizational aspects.

Now let us pass on to the analysis of the language of instruction from the point of view of linguistics and psycholinguistics. Such approach is taken in foreign testology and other related fields where text translation is necessarily combined with socio-psychological adaptation to target audience [3].

Philologists look at instruction as a speech genre which represents an invariant formal-semantic text model whose communicative purpose is to give directions about performing a certain action [19]. Consequently, the linguistic aspect of designing or adapting instruction consists in choice or "tuning in" lexico-grammatical means of instruction to age, social or other (related to individual peculiarities of development) capacities of those tested.

In other words, it is necessary to carry out specific transformation of the content taking into account peculiar features of the child's development and, first and foremost, his linguistic and speech competences. On completion of this linguistic work and making necessary linguistic corrections in the text we should carry out psychological verification of the instruction. Adaptation of test instruction or the whole text should in fact be always accompanied by re-standardization of the text. Unfortunately, such work, due to its high complexity and the need of long continuous effort of many specialists is not practiced, as a rule, in our psycho-diagnostic culture.

Summing up the above, let us state the following. A test instruction should be laconic; it should express the meaning of the test task precisely but without unnecessary detail. Psychologists should not give the children irrelevant excessive stimulation, and especially the verbal one, because of children's special needs which are primarily expressed in the peculiarities of information reception, speech underdevelopment and lower working capacity. What is more, it is necessary to keep in mind that instruction is not only to be understood but it should also be accepted. Before testing, it is necessary to make the child interested in the contact and ready to interact with the adults, without which it is impossible to create mutual understanding between the members of diagnostic interaction.

In relation to instruction, even a foreign encyclopedia of testology does not go beyond one phrase that instruction should be presented in an even tempo, i.e. in a standard way [2]. Only one foreign manual out of those we got acquainted with pays attention to the child's understanding the instruction and stresses the necessity to figure out the reasons of misunderstanding it and failure to carry it out [24]. "Clear instructions will help to keep a child on task. Only those instructions for the immediate task at hand should be given. If there is any hesitation or some sign of discomfort, the examiner should take time to determine whether the child understands the task. Shy children will often say they understand a task when they do not so that they do not have to be em- barrassed by the admission. Some- times inquiring about signs of discomfort will reveal that the child needs to visit the bathroom. It is best to get all these problems resolved so that the child can attend to the instructions and feel more at ease" [24, p. 8].

It is quite evident that this approach, being absolutely correct, does not comply with the requirements for application of standardizes diagnostic procedures described further in the given manual. Based on our own experience, we offer for discussion the following step-by-step recommendations for adaptation of the text of instruction to the age and psychological capacities of a child.

Step 1. Distinguishing the message in the author's variant of instruction.

Step 2. Choosing words for the text of instruction.

Step 3. Testing logical sequence of actions necessary for the task completion.

Step 4. Compression of the text of instruction on the lexico-semantic level in accordance with the message (compression is achieved by dropping out superfluous elements).

Step 5. Simplifying the text of instruction on the grammatical level.

Step 6. Comparing the original construction with the transformed one and assessing correspondence.

The choice of lexical and grammatical means should be implemented taking into account linguistic competence of those tested. We will now briefly formulate the requirements to the language of instruction for prospective authors.

1. Knowledge of all words of in-

struction.

2. The lexical meaning (semantic field) of the words should be monosemantic. It concerns, first of all, words with the high level of generalization denoting notions and terms. Ambiguous or polysemantic words, as well as synonyms should be excluded.

3. Careful use of qualitative adjectives and adverbs as quality criteria are rather subjective.

4. Trying to avoid words denoting emotions (*like, love, want*, etc.).

5. Order of sentences should take into account their semantic hierarchy.

Let us now give some examples of instructions wording [14] causing real difficulties of comprehension in preschool children with speech underdevelopment and recommended adaptive transformations (Table 1).

Table 1

Examples of instructions causing difficulties of comprehension
in preschool children with speech underdevelopment
and recommended adaptive transformations

Instruction	Adapted variant of instruction suggested by the authors
1	
Close your eyes. I will ring a bell near you. Listen attentively and point at the place where you heard the ringing of the toy (p. 38).	Close your eyes. A bell will ring now. Don't open your eyes but try to point at the place where the bell rang.
2	
Listen attentively. I will pronounce words in sets of five, four of which are united by a common generic notion and one of them does not refer to the given notion or refers to it to a lesser degree. Name this word (p. 88).	Listen attentively. I will give you some words. One word does not match all the rest. Name it!
3	
I will call numbers, you will try to remember them and give them in the same order that I call them (p. 79).	I will count. Remember the count. Repeat my count in the same order.
4	
Now we will play the following game: I will show you a picture with many objects that you know well. When I say the word "start" you will begin looking for and crossing out the objects I am going to call. You will have to go on looking for objects and crossing them out until I say the word "stop". You are to stop there and show me the picture of the object you have found last. After that you go on doing the same, i.e. looking for and crossing out the called objects. This will be repeated several times until I say the word "finish". This will be the end of the task (p. 39).	Let us play now. I will show you pictures with different objects. Look for and cross out the objects I am going to call. When you hear "stop" show me the last object. After that I will go on calling objects. And you look for them and cross them out. When you hear "finish" stop your work.

Serious discussion of the specificity of the problems of special psycho-diagnostics is a necessary condition for the development of this field.

We call on all specialists working with children with developmental disorders to take part in the discussion.

Summing up, we can make conclusions about the limits (possibilities) of standardization of diagnostic procedures and conditions of their application in special psychology. The necessity of maximal unification of observation is quite evident; otherwise it is simply impossible to compare the results of observation of different children and one child at different periods of time. But we should speak rather about unification of already known methods including instructions and their stylistic and technical design and production. In terms of conduct we should give up attempts to standardize speed and time of oral presentation of instruction.

As far as undesirability of repetition of the task by the examiner is concerned, we believe it is hardly worth doing; it may be useful to introduce a rule according to which the child under observation should necessarily repeat the instruction in a free form. The ability and quality of reproduction may give the examiner valuable information about the child's speech and level of understanding instruction, i.e. about his speech and thinking. At the same time, the experimenter will be more positive that successful or unsuccessful performance depends on the child's capacity to use the functions which are being tested.

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