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Psychological Features of Symbolization Among the Deaf in the Period of Youth

The article deals with results of a diagnostic study of revealing the distinctions in symbolization among the deaf and the hearing in the period of youth. More than half of deaf respondents demonstrate the simplest way of symbolization. Symbols-properties prevail in their individual consciousness; these symbols-properties do not make it possible to reveal qualitative differences of a symbol and a sign, which indicates the interpretation of symbolical values on the basis of a single significant sign. They have difficulties when comparing symbols even in a single subject area, cannot interpret it in various intensional contexts. Findings indicate the necessity of the development of the aimed didactic technologies which, considering the specificity of the sense sphere of the deaf, will initiate the development of their symbolical function.

Key words: sense sphere, sense formation, symbol, sign, symbolization.

To date, in the deaf-and-dumb pedagogy of our country, correctional psychology, age and pedagogical psychology, there is a complete system of formation of oral speech as a factor of the full-fledged development of the deaf pupil, favouring his/her full social adaptation (S. A. Zykova, T. S. Zykova, K. A. Volkova, E. P. Kuzmicheva, N. D. Shmatko, N. D. Yakhnina, F. F. Rau, L. P. Noskova, N. F. Slezina). Deformations in the communication sphere are the most studied among deaf pupils. Special pedagogics and psychology have a considerable experience of formation of communicative abilities and skills among pupils with impaired hearing (P. M. Boskis, L. P. Noskova, E. F. Rau, etc.)

In modern developmental science they have revealed personal transformations characteristic for the deaf. According to some experts, deaf children’s self-concept is formed later, than among their hearing contemporaries (T. A. Basilova, V. L. Belinsky, V. Z. Bazoyev, E. A. Viytar, M. I. Isenina, Yu. A. Maslova, M. M. Nudelman, V. A. Palenny, V. Petshak). Later than the hearing, they start to distinguish themselves from other people, to segregate own identity and characteristics of own “Self”, personal features of another person. The problem of development of specific methods and technologies of training of people of this category becomes urgent.

Methods on initiation of symbolical function, symbolization may form a separate area in the work with deaf seniors. Symbolization is a process of creation (at the level of public consciousness) and development (at the level of individual consciousness) the concepts-symbols in the generalized form concentrating the importance of their specific properties as “superimportant” or “superreal”. Concepts-symbols have a function which differs from any other concept as they are universal indicators focusing the learning subject on the importance of that
context which has to be indifferently apprehended and needs comprehension, assessment, a certain interpretation. The interiorization of concepts-symbols assumes the process of “uncrystallization” of the personal sense; the concept is its potential carrier. Formation of concepts-symbols of deaf young men and girls of has its specifics, as their process of interiorization of a sign and symbolical component of language is transformed in a certain way. In modern psychology there is a deficiency of researches on detection of features of symbolization among deaf seniors; this aspect of a problem became the purpose of the present research.

After the complete characteristic of the modern psychology of symbol and symbolization, defining the specifics of symbolization as the component of value and sense development of personality, we have defined the logic of the research diagnostic part. 52 deaf persons (32 girls and 20 young men) formed the experimental group of the research. Groups of hearing senior pupils of comprehensive schools of Rostov-on-Don (54 pupils, 25 young men among them) and group of senior pupils-winners of competitions of DANYUI (2012) on the humanities (23 senior pupils, 11 young men and 12 girls among them) formed the control group. All examinees of control groups were in the age from 16 to 18 years.

Existence of control groups within this investigation phase is caused by the following:

–now within developmental psychology and age psychology, there are no described reference characteristics specific to the process of symbolization and, therefore, for detection of the specifics of symbolization among the deaf it is necessary to reveal average values according to these characteristics of hearing pupils;

–techniques for detection of features of generalization of senses as a basis of symbolization are focused on sense features of hearing senior pupils and, therefore, for detection of the specifics of these processes among the deaf it is necessary to compare results of diagnostics with traditional standards.

For detection of features of symbolization in the period of youth we have developed the author’s technique “Detection of features of symbolization among deaf seniors” (I. V. Abakumova, E. A. Koltunova) which consisted of thematic pictures-cards representing symbols of a certain modality. For initiation of the activity of research participants, to each block of cards-symbols, we have offered projective questions (10 questions to each block) which helped to reveal:

–in what degree the symbol is familiar to the recipient (a formal component);

–at what level the given concept is used (at a universal concept level as a bearer of meaning or at a personal level, providing them with a personal sense), the understanding of specifics of a symbol in comparison with a sign was distinguished;

–readiness to use the given symbol at the description of personal values and feelings.
After the participant of investigation filled in questionnaires the content analysis of the presented answers was carried out.

Psychodiagnostic and projective techniques made it possible to investigate sense features of deaf senior pupils on the following parameters: egocentrations, groupcentrations, pro-social centrations and to reveal features of development of symbolization depending on a level of development of the person's sense sphere.

There were distinguished some parameters which indicate the level and features of symbolization among respondents:

- *levels of awareness and understanding of symbolical meanings*. Three levels were distinguished: low (the respondent does not understand symbolical meanings presented in diagnostic tools); average (the respondent understands interpersonal forms of the sense in the symbols offered in cards, can interpret their symbolical meaning); high (understands symbolical meaning of cards-symbols, can endow them with personal and sense interpretations, correlate them with meanings of other symbols presented in the given scale, distinguish their general characteristics);

- *levels of respondents' personal and sense interpretation of a symbol (levels of the personal importance of a symbol)*. Three levels of the personal importance of symbols were revealed: "symbols-properties“ – they symbolize a separate sign of a subject, for example a form or a color; at this form of interpretation of a symbol the respondent does not see difference between interpretation of a symbol and a sign; “symbols-compositions“ – generalization of a number of properties in a uniform steady image, for example architectural constructions such as the Egyptian pyramids, the Colosseum, etc., attainment of interpersonal forms of sense; “symbols-metaphors“ when the symbol consists in the hidden property of an object generating sense initiations of the respondent, existence of the personal sense at semantic interpretation.

The carried out research with use of an author’s technique on “Identification of levels of symbolization among the hearing and the deaf in the period of youth” made it possible to reveal differences on a number of significant characteristics of symbolization:

- formal indicators (the quantity of symbols which are used by senior pupils; the quantity of meanings of symbols which they know);
- substantial (how they understand the content of a symbol, generalization level at the heart of symbolical concepts, correlation of the meaning-sense in the process of the concept-symbol use);
- motivational (what are motives inducing use of concepts-symbols: motives-stimuli or sense forming motives).

The revealed characteristics made it possible to reveal three groups of respondents according to levels of symbolization development:
— the group of senior pupils who use symbols at the level of the acquired (learned) meanings, thus most often learning is at the level of empirical generalization (they distinguish one important sign and other properties are interpreted with great complications or cannot be interpreted at all). The meaning is most often interpreted within a certain situation and cannot be extrapolated (as a symbol) to other situations. Deaf senior pupils formed this group, however, a number of pupils from the first control group (senior pupils of comprehensive schools) also showed this level of development in understanding of symbols. We considered this level of development of symbolization to be low;

— the group of senior pupils who use symbols at the level of a complete generalized image, can interpret its meaning in various situations or intentional contexts. These senior pupils can interpret extra personal or interpersonal forms of sense. On certain conditions (initiation from the teacher) senior pupils of this group can try to “uncrystallize” (after A.N. Leontyev) interpersonal meanings which bearers are symbols (for example, to interpret what people feel at perception of the well-known pictures, what the painter of this picture wanted to say), however they have difficulties in delivery of the importance of the image on the level of personal sense (have difficulties answering a question, “Does this this symbol have a value for you?”). We considered this level of development of symbolization and interpretation of the symbol to be average. Deaf senior pupils, senior pupils from comprehensive schools and some persons from the group of winners and winners of DANYUI competitions formed this group;

— the group of senior pupils who did not have difficulties at interpretation of concepts-symbols at the level of personal sense (could interpret value and sense aspects of the symbol for self), easily extrapolate this sense on various sense forming contexts. This group included only 3 deaf seniors, 23 pupils of comprehensive schools and the majority of pupils of control group of pupils-winners and laureates of DANYUI competitions. We considered this level of development of symbolization to be high.

The following investigation phase consisted in carrying out psychodiagnostic and projective techniques, for the purpose of revealing the relation between the level of development of the sense sphere of pupils and levels of symbolization development.

Quality indicators of the self-concept of the hearing and the deaf in the period of youth by a “Who am I?” technique (in % from a number of recipients in this group) did not reveal significant distinctions in the first two scales: joining characteristics (reference groups, family), joining characteristics (social groups). All respondents were rather successful characterizing self according to belonging to certain groups — sex, age, nationality, physical condition.

On the basis of the correlation analysis it is possible to speak about a tendency of senior pupils with a high level of development of symbolization to the differ-
entiated self-relation. They seek to specify the specific features which distinguish them from other people. They identify themselves with certain groups, however, the world of their internal differences from others (happy, creative, dreaming etc.) is the main thing for them. The lowest indicator on differentiation in self-relation was among senior pupils who had a low level of symbolization. On a differentiation scale we have revealed significant distinctions in self-relation– positive correlation with the symbolization level. The higher the indicator on this scale is, the higher the level of endowing symbols with personal sense, the level of the personal importance of symbols is ($R = 0.304$, $p < 0.05$). We haven’t revealed correlation relations between the level of self-appraisal and the level of development of symbolization.

We studied group centrations of respondents according to three areas: 
– we have revealed the level of social isolation of deaf senior pupils; 
– the level of communicative orientation (the need for communication not only within the deaf subculture, but also with other social and age groups); 
– the specificity of social isolation (distance) in relation to symbolical information among deaf senior pupils.

According to the first scale we have obtained the results which confirm those characteristics which are traditionally revealed by psychological science and deaf-and-dumb pedagogy. In control groups (hearing senior pupils) we haven’t revealed significant distinctions on levels of social isolation. The level of social isolation is almost the same among pupils of comprehensive schools and participants of DANYUI (sufficiently low). They feel themselves adapted in the world around, freely communicate with contemporaries, and also representatives of older generation (parents, teachers, other adults). Their communicative problems are most often reduced to problems in communication with specific partners, instead of with groups of partners in communication. We have revealed quite a different situation among our respondents from experimental group (the deaf).

### Levels of social isolation among deaf young men and girls (%)

<table>
<thead>
<tr>
<th>Levels of social isolation</th>
<th>high</th>
<th>average</th>
<th>low</th>
</tr>
</thead>
<tbody>
<tr>
<td>young men</td>
<td>36</td>
<td>64</td>
<td>–</td>
</tr>
<tr>
<td>girls</td>
<td>22</td>
<td>56</td>
<td>12</td>
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A high level of social isolation indicates the fact that a young man feels own estrangement (often hostility) of the world around and surrounding people. Deaf young men (more than a third of the sample of respondents) were more isolated, than deaf girls. Their relations and interactions with the world around and the society were more deformed; more often than other participants of diagnostics they chose the answer “often” in relation to characteristics “I feel myself isolated...”
from others”, “People round me are not with me” and even “I am unhappy because everyone rejects me”. A large quantity (nearly a quarter) of deaf girls - research participants - also have rather serious problems at interaction with the world around, seriously worry about the fact that “Nobody knows me well”, “Now I have no close ones any more”. According to the level of social isolation and the level of development of symbolization we have revealed negative correlation (Spearman’s R is between the level of social isolation and the level of development of symbolization – -0.255 $p < 0.05$ – significant distinctions), i.e. the level of social isolation is higher, the level of development of symbolization is lower. Deaf young people who do not feel themselves firmly isolated from the society and the world of hearing people use symbols (especially at the level of interpersonal and personal sense); those who have difficulties in interaction with environment, do not use symbols usually (even symbols-meanings). Young people who do not reflex a considerable estrangement from society use symbols actively.

The interpretation of the DDI technique (E. Klimov) made it possible to reveal a certain dependence between the specifics of interpretation of the world picture and the level of development of respondents’ symbolical function: a planetary, mediate picture is characteristic for senior pupils with high level of development of symbolization, an abstract one is a characteristic for senior pupils with average level, a landscape one and a “direct environment” picture are characteristic for those whose symbolical development is at a low level.

The carried out research made it possible to reveal that the deaf in the period of youth have difficulties in generalization of senses; their generalized senses are focused on egocentrations. At such type of a dominant centration as the generalized one can consider only pragmatical, operational, situational meanings determined by the subject logic of achievement of the purpose in a concrete situation. Such senses are not personal; they are bound to a situation and play an auxiliary regulatory role in its understanding. It was established that in the course of symbolization (use of symbols and comprehension of a symbol from the point of view of own values) deaf senior pupils are most often motivated by associative motives, use symbols by analogy, prefer the symbols containing a figurative component, find it difficult to interpret and use the symbols containing abstract components. They try to use a symbol as that exists in reality while their hearing contemporaries consider a symbol as a source of cause-and-effect relations as a stimulus for feelings and deeper comprehension of reality and self.

The data obtained in research speaks about the necessity of development of the directed didactic technologies which considering the specifics of the sense sphere of the deaf will initiate the development of their symbolical function.

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