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**«SIBLING» METHODS IN PSYCHODIAGNOSTICS\***

*SUMMARY. The article gives justification to a new approach in psycho diagnostics — sibling methods. They are alternative versions of one technique (questionnaire, projective, psycho semantics), allowing to research a psychical reality episode selected by a single base at various levels of the world image. The approach is being developed to get rid of difficulties and limitations of separate types of diagnosing and make a combination of different types of techniques methodologically correct. The article presents the data of empirical investigations directed to the comparison of questionnaire and projective techniques measuring the same personality characteristics (life support system, individual personality peculiarities, and internal proneness to conflicts). In the process of investigation it was revealed that in spite of the same subject of diagnosis every separate technique was very effective. The results of the techniques are weakly comparable. The correlation analysis shows weak links between indicators of the same level of life-support system. The creation of sibling versions such as a questionnaire, a projective test, semantic differential and their complex use allow to measure psychical reality on different levels of representation (level of semantic formula, constructs, implicit models and nuclear structures).*

*KEY WORDS. Psycho diagnostics, test, assessment, psycho semantics, world image.*

Psychodiagnostics in Russia is in crisis, as it was noted at the National Conference of Psychodiagnostics in Chelyabinsk in 2008 [1]. Leading scientists in the field of diagnostics (N. A. Baturin, S. B. Malykh, S. A. Manichev, V. E. Orel) identified the following problems: lack of professional test developers, most of the tools developed in Russia do not meet modern international standards (for example by the APA — the American association of psychologists), and their psychometric indicators of representativeness, validity, reliability, credibility have not even been checked, ethical diagnostic standards are not observed. Noncompetitive methods are often created.

Practical psychologists also point to the urgent need for the qualitative domestic diagnostic techniques, meant to solve modern problems; however, they have to use

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the techniques created more than 40 years ago, or the techniques by foreign authors created and adapted for Russia at the same time period. It prevents them from receiving satisfactory results of diagnostics and making forecasts (for example, in the field of the personnel).

Besides the general crisis, *there are a number of the problems in Russian psychodiagnostics caused by the peculiarities of the used methods.* Both questionnaire and projective types of diagnostic means (in research of a personality) are characterized by a number of possibilities and restrictions [2].

Table 1

**Comparative Analysis of Projective and Questionnaire Techniques**

	Possibilities	Restrictions
Personal questionnaires	Standardized, can be easily psychometrically checked. It provides their validity and reliability	Probability of answer falsification Distortion of results due to the adjusting factors and/or differences in understanding the questions by the test subjects Descriptive language is strictly controlled (it restricts personality description)
Projective tests	Allow to investigate specific features of the personality (almost ideographically) Reveal the personality integrally There is an opportunity to specify and to clear up if there are difficulties in question understanding Falsification of answers can be detected by an expert (diagnostician), and the subject's attitudes can be taken into consideration during the interpretation	Traditional methods to prove reliability and validity can not be applied The survey and/or the interpretation are time-consuming Unaccountable use of the interpretative schemes, taken irrespectively to the subject of the test, can lead to false diagnostic results

Researchers and psychodiagnostics often combine questionnaires and projective methods. They believe it allows removing restrictions of each of these types. However, this assumption hasn't been checked empirically. It remains unclear to what extent such removal of restrictions actually takes place. It is also unclear whether questionnaire and projective methods explore the same or different psychic realities using different techniques; and what psychodiagnostician really integrates: different descriptions of the same mental reality or the descriptions of different realities within a single personality. To cope with these difficulties, some researchers offer to create new tools based on psychosemantics [3]. However, psychosemantic methods do not help to get rid of these issues, but only triples them for each pair. Furthermore, overreliance on psychosemantic methods creates another problem – a researcher gets the false impression that he can measure and evaluate everything, while psychosemantic methods also have their restrictions.

The objective of this work is to suggest the conceptual base that would allow to ensure the methodological correctness of the combination of different methods; and on this basis to discuss the prospects of the development of psychodiagnostic methods packets, conventionally named sibling packets (methods).

A questionnaire vs projective test: conflict or complementarity?

Within the research aimed at the psychodiagnostic operationalization of theoretical concept of the life support system of a person (LSSP), we developed two methods – a questionnaire and a projective test. They were meant to identify the priority levels of the LSSP\*, and to give the comparable data.

Having been psychometrically validated, each separate method proved to be highly efficient in determining life support locus and describing individual characteristics of the subjects. In particular, during the psychometric questionnaire technique testing good factor structure has been found (factor analysis based on questionnaire statements), fitting exactly into the LSSP levels [4]. In the process of the subjects' data factorization, all factors got organized into five groups, also in accord with the leading LSSP level diagnosed in each subject in a group [4]. The projective version of "Life Support Locus" method also allows to diagnose the prior and secondary LSSP levels, as well as the dynamics of their actualization in a crisis/frustrating situation.

The results of the both versions (questionnaire and projective) were compared with the help of the correlation analysis. Neither medium nor strong links were found (Table 2).

*Table 2*

**The results of the Correlation Analysis of the Data of Questionnaire and Projective Methods (for each LSSP level)**

LSSP levels	<i>p</i> - Spearman
Higher personal resources	0,09
Copings	-0,24
Psychical defenses	0,29
Psychosomatic response	-0,09

We researched other methods in the similar way. While testing the construct validity of the projective technique "Metaphors" we compared the obtained results with those of questionnaire techniques (MMIL, CPI) [6]. No fairly strong data correlation between "Metaphors" and the CPI tests was identified. The other types of analysis like discriminant and dispersion also did not any give significant results. Positive correlation was found only in the most general form (Table 3). Test subjects' stories were divided into groups according to the kind of interaction between the

\* Life support system of a person - a concept introduced to denote hierarchic evolving system of protective and adaptive mechanisms; it has a level structure: the level of psychosomatic response, mental protection, coping and higher personal resources [5].

metaphors (conflict, harmonious, etc.). Discriminant analysis was carried out; the contribution of each MMIL scale to the stories distribution into groups was studied. The following hypothesis was tested: *individual differences in various aspects of personality diagnosed with MMIL have links with differences found with "Metaphors" technique*. The distribution of stories into groups was taken as an independent variable in the discriminant analysis, and MMIL scales were taken as dependent variables. The contribution of each scale to the formation of differences in the stories of the test subjects was determined.

Table 3

**The contribution of MMIL Scales to the Formation of Differences in Test Subjects' Stories in "Metaphors" Test**

MMIL scales	8	0	9	L	3	5	7	K	6	F	4	2	1
Partial Lambda	0,33	0,6	0,68	0,76	0,77	0,79	0,8	0,83	0,84	0,86	0,92	0,93	0,95

The less Wilks' partial Lambda is, the bigger contribution the variable makes to the formation of the distinctions between the groups. 8th MMIL scale is mostly involved in this formation, other scales fall behind.

Thus, several cases of the data comparison of the questionnaire and projective techniques showed badly comparable results, despite of the diagnostic efficiency of each method taken separately.

**World image levels as psychometric targets.** Many researchers showed the necessity and possibility of measuring «surface - depth» parameter of a person's [7-9]. The allocations of levels in accordance to this variable were discussed. We have proved the idea of the following world image levels [10].

**Level of semantic formulas** is the most superficial level. It is provided by means of the description of subject characteristics of the surrounding reality organized in categories (including elements of attitude to them). As most of such means have steady names (i.e. semantic equivalents), this level is easy for understanding, i.e. transformation of the content into the form of a message.

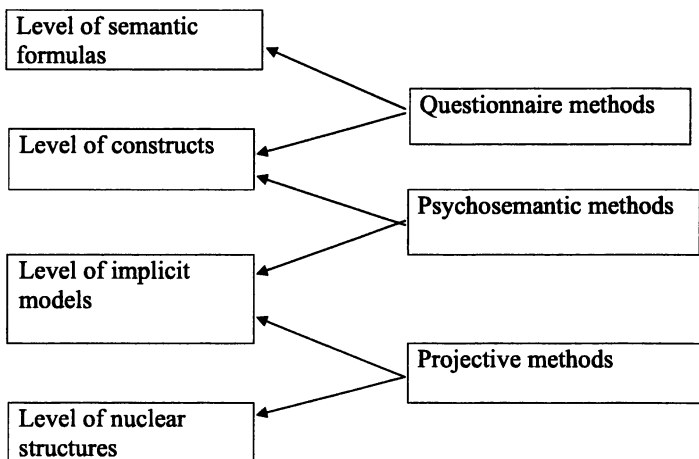
**Level of constructs** is a deeper level. Structurally it represents a set of constructs or more general categories that contain the elements of more superficial level (semantic formulas). One construct (for example, «weight») can be subjectively expressed in various areas (physical characteristics, social status, subjective value, etc.). In each of these areas it is expressed in various means (for example, for a physical characteristic: «weight», «heavy», «unwieldy», «massive» and so forth).

**Level of the implicit models** is a set of categories of even higher degree of subjective generalization. These categories are united according to their subject features (denotative), but primarily on the subjective bases (connotational). It is characterized by a high degree of subjective persuasiveness and very low consciousness (implicitness). It is substantially presented in the form of basic assumptions of how the world is arranged, rigid schemes of person's interaction with the world. It is

structured as a set of the object-focused descriptions of the world fragments in the language of subjective ideas about them — implicit models of these fragments: personality (J. Kelly’s implicit theories of personality), interpersonal relations [10], responsibility attribution (Rotter’s control locus) and etc.

**Level of nuclear structures.** As far as it doesn’t have any complete semantic means to define its content, so any attempts to do it inevitably turn into metaphors (allegories). That is why it would be appropriate to call it the level of basic metaphors. It contains prototypical description -evaluation- interaction schemes that underlie the creation of the implicit models of the subject areas. The examples of empirically revealed schemes of such type are Osgood’s “evaluation”, “force” and “activity”. They have perfectly verified W.Wundt’s theoretical model of emotions: “pleasure — displeasure”, “tension — release” and “excitement — calm”.

Considering the above-mentioned problems, different types of psychodiagnostic means are interpreted as being different in their focus: questionnaires are generally addressed to two superficial levels, while projective tests to two deep ones. Psychosemantics methods keep intermediate position (pic. 1).



Picture 1. Ratio of psychodiagnostic means and world image levels (psychodiagnostic targets)

Sibling psychodiagnostic packets - three tests in one set.

If the described distinction between the world image levels is taken as a conceptual foundation, it becomes natural to not simply sum up different techniques’ results, but to amplify them meaningfully. There are different ways to implement this idea: while designing methods, interpreting and planning psychodiagnostic research.

**Designing of methods: coordination of subjective orientation (ecological validity).**

The most common operation in the phase of methods’ design is the creation of their parallel forms. Parallel forms of the same test should agree in their psychometric characteristics. It becomes evident from A.G. Shmelev’s definition: “Parallel test

forms are a kind of alternative forms of the test: they have similar mean value and standard deviation, as well as the same correlations with other measurements for all samples. P.F.T. put test subjects in the equivalent conditions - tasks content, format and difficulty are the same. Parallel tasks in parallel forms, as a rule, have similar logic and semantic patterns (frames), but different qualitative and quantitative variables integrated in this unified frame. The fulfillment of parallel forms by the same group of the test subjects provides high correlation coefficient between the results of these forms" [11].

**Sibling** test versions. *They are tests different in type and method of construction. These tests consistently measure the fragment of psychic reality, picked out according to a common factor* (functional, conceptual or otherwise). In accord with above mentioned conceptual assumption, tests different by nature, should be addressed to the different fragments of psychic reality, so that at the level of theoretical study there would be **the possibility of coordinated interpretation** of these tests results.

*Projective* test (as a component of the sibling triad) should be focused on the identification of deep motivational and poorly comprehended assumptions. These assumptions are actualized when a test subject deals with the tasks that can be solved due to the psychic structures, interesting for a researcher, i.e the structures that functionally form the foundation of psychic reality under consideration.

*Psychosemantic technique* (as part of the triad) should be established so as to demonstrate what kind of implicit models and constructs replace the basic motivational (semantic) intentions of the subject at the time of actualization. Most commonly the data is collected in construct language. And implicit models (superordinate category) are reconstructed as a result of mathematical modeling.

*Questionnaire* test should be reasonably aimed at finding out to what extent and how the implicit content and unconscious processes are understood.

Psychodiagnostic examination planning.

According to the objectives of the study the most appropriate version of a technique can be chosen, for example: questionnaires are suitable for screening and rapid diagnostics; projective versions are good for individual counseling problems; psychosemantic versions fit implicit representation studies both in individual and group researches.

**Interpretation of psychodiagnostic examination results.**

Results, obtained with the help of sibling versions, can be comprehended and interpreted individually (in this case considering the version restrictions) as well as in combination (complementing, not canceling each other). Contradictions, incoherence of (quantitative) results of sibling versions are important for interpretation, as they do not indicate the imperfection of the tool, but show the differences in the conscious and unconscious ideas of the test subject and may indicate the roots of an internal conflict that can form the basis for individual psychological counseling [12].

An example of sibling triad implementation.

Within «Life Support Locus» method, the sibling versions idea is implemented as follows:

**The questionnaire** comprises 56 statements; each of them corresponds to one of the LSSP levels. A test subject marks options of response, actions, emotional states and bodily sensations that are characteristic of him. The questionnaire reveals conscious protective and adaptive processes used by the subject. When comparing data of the questionnaire and other versions of the triplet we can also detect the degree of the distortions that appear on the way to awareness. **Projective version** consists of 20 crisis/frustrating situation descriptions; a test subject describes his thoughts / actions / feelings at the three stages of situation development (first reaction, monitoring, and completion of the situation). It allows the researcher to diagnose unconscious protective and adaptive strategies and their dynamics. **Psychosemantic version** (is being developed) - situations (Rosenzweig's frustration test drawings type) are scaled, and a subject's thoughts/actions/feelings are described.

Each of the versions has its own objective. The questionnaire version is designed for screening diagnostics; it makes it possible to determine the risk group - subjects that have problems with life support efficiency. The projective version allows the researcher to observe the individual picture of LSSP in details and its dynamic characteristics. The psychosemantic technique helps to minimize the possibility of conscious and unconscious distortion of the results by the test subjects. And it also allows to conduct research with large groups of subjects, retaining the ability to obtain reliable results (which is difficult to achieve using simple questionnaires). Applying three versions of the method to one person allows to see the holistic picture of LSSP at all levels of psychic reality.

#### **Conclusions.**

1. Psychodiagnostics crisis in Russia is associated with the lack of professional test developers, the discrepancy of the tests and the current international standards, low competitiveness of the methods, using outdated techniques. It requires the development of new approaches to the creation of psychodiagnostic tools. New methods should not be burdened with the restrictions of the traditional methods (result distortions, rigidity of descriptive language, complexity, interpretation and validation difficulties, etc.).

2. Consideration of the three types of the diagnostic procedures (questionnaire, psychosemantic and projective) within different levels of the world image allows the researcher to organize them according to "surface -depth" parameter. Due to this analysis, conceptual bases which make reliance on a combination of different types of techniques methodologically correct can be proposed. There is no need to search for direct links between the results of projective and questionnaire techniques that measure the same mental process.

3. The justification of the combined use of the techniques opens perspectives of the development of psychodiagnostic test packets that are conventionally named sibling packets. Sibling packet includes various tests which consistently measure a fragment of psychic reality picked out according to a common factor. They can be interpreted either coherently or separately at the sensitive level of the world image. The projective test explores the deepest "nuclear" mental structures. The psychosemantic

technique deals with basic motivational intentions of a subject organized in the implicit models. The questionnaire registers how these implicit models and contents of the unconscious are perceived.

4. The first attempt to implement a sibling packet using the “Life Support Locus” method has been made. The application of questionnaire and projective versions showed that the direct result correlations provide weak links, while qualitative analysis enhances the diagnostic capabilities of the methods and reveals individual characteristics of test subjects’ life support system.

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