

## **EFFECTIVENESS AND THE WAYS OF SOLVING PSYCODIAGNOSTIC TASKS BY STUDENTS- PSYCHOLOGISTS WITH DOMINANCE OF DIFFERENT STYLES OF THINKING**

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**Abstract:** The article is devoted to the experimental research of efficiency of solving psychodiagnostic tasks by the students-psychologists with different thinking styles. In the theoretical part a style of thinking as a determinant of successfulness is concerned. The hypothesis is the supposition that efficiency and ways of diagnostic tasks made by the students-psychologists are determined by a dominating thinking style. For the examination of the hypothesis the following methods were used: questionnaire "Styles of thinking" by Brams Harrison, the method of experiment (solution of 6 tasks from real consultative practice), content-analysis of protocols and correlation analysis by Ch. Spirman. The research has been done during some years with students of 4 and 5 courses in South-Russian Humanitarian Institute. The results are the following. Students-analysts are rather successful. They demonstrate good diagnostic process, put forward adequate hypothesis and choose adequate methods, but they don't formulate recommendations. For the students-realists it is important to render support to the client and give feedback. The quality analysis showed that they are inclined to individual forms of work. Pragmatics are characterized by chaotic behavior, they don't put forward hypotheses, offer standard methods. Idealists are the worst. They have difficulties in logics and formulating questions to the client. Synthetics on the whole display insufficient success, but they can solve the task correctly due to guessing or hypotheses. Synthetics operate with the methods poorly. Experimental data demonstrate that the thinking style often defines diagnostic search; variety and quality of put forward hypotheses, adequacy of choosing methods of research.

**Keywords:** psychological diagnostic, styles of thinking, ways of solving psychodiagnostic tasks,

### **1. Introduction**

Psychodiagnostic stage, as it is known, is an initial and main one, because in full it shows further choice of strategies

and directions of the work of a psycholinguist with a client. Effectiveness of psychodiagnostic activities is defined by a number of factors, among which the scientists single out the psychologist's possession of generalized psychological theory, correct using of methods and personal peculiarities of a psychologist. But the research of a psycho diagnostic as a subject of professional activities is extremely insufficient. Even in a less degree in literature one can find the works dealing with psychological determinants of the effectiveness of diagnostic search.

L.P. Urvantsev (1983) picked out a specter of factors, describing variability of thinking in diagnostic activities. Their fixation reflected in forming approaches, explaining the process and result of professional decisions:

1. taking into account the difference in cognition as ability;
2. "strategies" approach;
3. concept of cognitive styles;
4. distinguishing the influence of personal qualities on thinking processes (alarm, self-estimation, resistance to indefiniteness, etc.);
5. singling out different "mind qualities" (independence, wideness, depth, quickness, etc.);
6. taking into account difference in cognitive structures, ways of representation of knowledge (complexity of constructive system, subjective psychosemantics, etc.);
7. typological approach (mental and artistic types, individual style of activities);
8. defining of influence of the general personality direction on the

peculiarities of thinking (mathematical mental quality, focus on practice or theory, professional preferences, etc.);

9. taking into consideration interrelations of different types of thinking (verbal-logical, visual-imagery or subject-active).[8]

Each of these approaches reflects its peculiarity in displaying diagnostic thinking. A cognitive style is the aspect of solving a diagnostic task, which allows understanding individual and style differences between specialists. To the foreground there appear typical for each concrete personality individual peculiar devices of receiving and processing of information, devices of acquiring new knowledge. Thus, reflexive specialists give more ways of solving the task, and diagnosis with a low level of tolerance substantially increase the amount of collected diagnostic information.[9] A number of differences are observed in the process and effectiveness of solving diagnostic tasks by “the theorists” (inclination to theoretic thinking) and practical persons (with the inclination to a practical type of thinking). For practical people less amount of mistakes in the process of a diagnostic search and more effective solution of the diagnostic tasks on the whole is typical.[9] Interrelations are the following: a) between field dependence and inclination to using less amount of information for diagnosing, b) flexibility and reflexivity with putting forward more hypotheses, c) their little amount with rigidity and impulsiveness.[4] The main difference of field independent from field dependent is the peculiarities of their information-search strategies: “the field dependent use another person as a means of solving problem situations – from here comes a higher need in cooperative and attractive forms of communication, and field independent subjects rest on their own experience, preferring to independently analyze the situation, focus on its content aspects, decent rating while making decisions”.[6]

The influence of a cognitive style on the efficiency of solving tasks of diagnostic types was studied by S.V. Rogov (1985). As it is mentioned by S.V. Rogov, probationers, who have reached a high level, acted on the basis of integral features and were distinguished by flexibility. Others under test were observed to have a different set of components, when adequate and full decision is reached with the participation of not intellectual, but perceptual generalization. On the basis of these two mechanisms it appeared possible to characterize different cognitive styles. They are defined by the following parameters: total or detailed approach, switching (flexibility) or rigidity, mainly perceptive or intellectual way of solving the tasks. [7]

The quality and individual peculiarity of psychodiagnostic activities, in the opinion of S.N. Kostromina, are maintained by the individual style of cognitive professional activities, which includes strategies of a diagnostic search, ways of receiving and processing of information, qualities and characteristics of professional thinking. [5]

Realizing the complexity of psychodiagnostic activities, we think that its effectiveness is determined by the totality of different style levels peculiarities of a personality: styles of coding information, styles of processing information (cognitive styles), individual-original ways of putting and solving problems (styles of thinking), cognitive styles. In the framework of our investigation we got limited by studying of styles of thinking. The choice of the style of thinking is determined by the fact, that style characteristics are connected with activities and behavior, make an impact on a wide range of behavioral reactions and also fulfill a system-creating function.

Styles of thinking are differentiated, first of all, according to goals and means, which different people choose when solving one and the same problem.

There are several classifications of styles of thinking.[1, 7, 3] Thus, R.J. Sternberg made an analysis of three intellectual styles (legislative, executive, evaluative), which are revealed in the choice of professional activity and correspondingly in preferable ways of solving professional problems.[7]

As in our research we use the classification of thinking styles of A.F. Harrison, R.M. Bramson, we shall give their short characteristics.

Synthesator is a person, capable to catch general regularity in details and vice versa – in a general system – the elements it compiles; he notices contradictions in, as it seems, unarguable proofs and concepts.

Idealist is a person adjusted to the search of harmony and agreement between people. He is attentive to alien problems, likes to analyze them and make conclusions. He is a bit conservative in views and habits, may prolong the solution of the problems, hesitating in choice or trying to find a better variant for their implementation.

Analytic is a person, systematically analyzing facts and looking for logical ways of the problem solution. First he collects data, then analyzes them and makes conclusions. He is very attentive to details.

Realist is a person of a concrete direction both in thoughts and actions. He is adopted to realization of his own or other ideas and quick practical result. He is very critical, often intolerant, considers facts, experience and competence the most important. He is able to simplify problems, doesn't like to deal with meditations. He is oriented on the current tasks and doesn't like to look in the far future.

Pragmatic is a brave experimenter and innovator, flexible tactic, well taking into account different possibilities, variants of problems solving. He plans his actions, but his plans are changeable, because he usually acts according to the situation. He doesn't like to wait and is aimed at quick results. Striving to a large profit in future

he prefers to get at least part of profit now. He doesn't like long theoretical talks. He is not interested in details of the matter, but only in result.

Judging from what has been written above we suggested that: 1) effectiveness and ways of diagnostic search will depend on the prevailing thinking style of students-psychologists; 2) the most successful in solving diagnostic tasks will be the representatives of analytic and realistic thinking styles.

## **2. Materials and methods**

The research was done together with a post-graduate Atchina A.V. with the students of 4-5 courses of the psychology faculty. 252 people took part in the research.

The research had five stages. At the first stage with the help of the questionnaire of thinking styles by A. F. Harrison, R. M. Bramson the thinking style of students-psychologists was revealed.

At the second stage the probationers were offered to solve 6 psychodiagnostic tasks. All diagnostic tasks were taken from the real practice of psychologists-consultants. When solving the tasks the students were for every task to bring up hypotheses on the reasons of ineffectiveness, find methods adequate to the psychological problem, give recommendations for the solution of the offered problem.

The task solving was analyzed according to the following parameters:

1. Effectiveness of the solution of a psychodiagnostic task – an integral criterion, which was evaluated according to the three-points scale:

0 points – the solution either utterly wrong or there no solution;

1 point – the solution is partly right;

2 points – the solution is right.

The correctness of the solution was bases on the expert method. In the

expertise 10 psychologist-practitioners with work experience of not less than 5 years in practical consultancy took part.

2. The number of stages of diagnostic process.

3. Succession of the stages of diagnostic process.

4. The number of preliminary hypotheses.

5. Adequacy of the hypotheses to symptomatic.

6. The number of methods.

7. Adequacy of methods.

8. Feedback –the presence of the stage of recommendations was taken into account.

The above mentioned parameters let evaluate the level of development of different components of psychodiagnostic activities: logical component was presented by the criteria and succession of stages of diagnostic search and also by the number and adequacy of suggested hypotheses; semiotic element – by the criteria of adequacy of hypotheses to the symptomatic and adequacy of methods; technical component was evaluated by the amount of suggested methods and their adequacy; deontological component was presented by the criterion of feedback.

At the third stage these tasks were solved by 10 experts – professional psychologists with working experience of more than five years.

At the fourth stage with the help of content analysis individual protocols were studied and singled out categories were fixed:

- 1) search of the problem / infringements;
- 2) search of resources;
- 3) search of solutions;
- 4) questions to the client;
- 5) the support of the client;
- 6) neutrality of description;
- 7) “non-professional judgments”.

At the fifth stage with the help of the Ch. Spirman correlation analysis the

peculiarity of solving psychodiagnostic task by the students-psychologists with different styles of thinking revealed.

### **3. Result**

The results of the correlation analysis give us the opportunity to analyze regulative, processional and content characteristics of solving psychodiagnostic tasks of the representatives of different styles of thinking.

The analytical style of thinking is positively connected with the effectiveness of task solving ( $r=0,27$ , by  $p=0,01$ ), adequacy of the put forward hypotheses ( $r=0,24$ , by  $p=0,01$ ) quantity ( $r=0,26$ , by  $p=0,01$ ), and adequacy of the methods ( $r=0,38$ , by  $p=0,01$ ) and the direction to the search of solutions ( $r=0,18$ , by  $p=0,05$ ). In the content sphere it means that the students with analytical style of thinking very solve psychodiagnostic tasks successfully, because they have a developed logical and gnoseological components of psycho analytical activities. In the scheme of the diagnostic process they omit 1-2 stages, put forward hypotheses and suggested methods are always adequate and lead to a correct psychological diagnosis. Analysts do not allow breaking professional ethics, focus on the search of resources when solving the task. Analyst-students often omit the stage of recommendations and don't give support to a client.

Realistic style of thinking is positively connected with the number of diagnostic process ( $r=0,28$ , by  $p=0,05$ ), feedback ( $r=0,47$ , by  $p=0,01$ ), skill to support the client ( $r=0,27$ , by  $p=0,01$ ), the quantity of questions ( $r=0,58$ , by  $p=0,01$ ). It means that the effectiveness of the solution of psychodiagnostic tasks by realists is connected with the number of stages of a diagnostic process and completeness of the received information. For the students with the realistic style of thinking it is fairly important to render



support to the client and give feedback. The qualitative analysis showed that they are inclined to individual forms and methods of work. It is probably connected with such peculiarities of a realistic style as orientation on the recognition of the facts, on one's own sensations. It is possible to be reached only working with the client individually. Realistic thinking is characterized also by the concreteness and direction on changing, correction of the situation in the aim of reaching a certain result. This aim at best may be only realized in the individual work of the psychologist with the client.

For the probationers with a pragmatic style of thinking the common feature is a curtailed scheme of a diagnostic search (102 stages) with an often frequent omission of the stage of hypotheses and methods. Students-Pragmatics are concentrated on the search of the problems and variants of solutions, they don't forget about recommendations and the client support, but often breaks the rules of professional ethics. The pragmatic style of thinking has a negative connection with inclination to the use of non-standard methods when solving psychodiagnostic tasks ( $r = -0,41$ , by  $p = 0,05$ ). It says that the more pragmatic style of thinking dominates the subject's diagnostic activities, the less he uses non-standard variants of psychodiagnostic tasks, and more often he limits himself with using standardized methods. It is rather connected with some material and mundane character of a pragmatic, his aim to receive a final result.

Idealistic style of thinking has negative interactions with a large number of parameters of task solving: quantity ( $r = 0,60$ , by  $p = 0,01$ ) and succession of stages of diagnostics ( $r = 0,28$ , by  $p = 0,01$ ), quantity ( $r = 0,33$ , by  $p = 0,01$ ) and adequacy of methods ( $r = 0,18$ , by  $p = 0,05$ ), direction to the search of the problem ( $r = -0,26$ , by  $p = 0,05$ ) and the ability to ask the client questions ( $r = -0,28$ , by  $p = 0,01$ ). Positive interrelation is revealed only with the

category of "search of resources" ( $r = 0,22$ , by  $p = 0,05$ ). Therefore it is possible to say that idealistic thinking style of the students hinders the successful solution of diagnostic tasks, defining only a positive vector in the search of a diagnostic decision.

Synthetic thinking style of the students is meaningfully very positively connected with the amount of the put forward hypotheses ( $r = 0,21$ , by  $p = 0,05$ ) and their adequacy of the declared symptomatic ( $r = 0,48$ , by  $p = 0,01$ ), negatively – with adequacy of the methods ( $r = 0,18$ , by  $p = 0,05$ ), ability to give feedback ( $r = -0,12$ , by  $p = 0,55$ ) and efficiency of the task solution ( $r = -0,15$ , by  $p = 0,05$ ). That is the more synthetic style is expressed, the less successful are the students in solving psychodiagnostic tasks. The efficiency of psychological diagnosis by the synthetics depends on the amount and adequacy of hypotheses put forward and also on the direction to the search of solutions. The students-Synthesators have a weakly developed gnoseologic and technical element of the diagnostic activities.

#### **4. Conclusion**

On the basis of the received data it is possible to make the following conclusions:

1. Thinking styles influence the effectiveness of diagnostic tasks differently: the most successfully the tasks are solved by the representatives with analytical style of thinking, the less successful – the subjects of idealistic style.

2. During the diagnostic tasks solving (when the real client is absent) the subjects demonstrate dialogization of thinking: they formulate questions to the client, render support to the client and give feedback.

3. Processional and content characteristics of solving psychodiagnostic

tasks by the students with dominance of different thinking styles are rather variable.

4. Characteristic features of the psychodiagnostic tasks solving of the representatives of pragmatic styles of thinking is the use of standardized methods, of the representatives of idealistic style of thinking is inclination to individual forms of work.

5. To sum it up, in the present work regulative, processional and content characteristics of the psychodiagnostic tasks solving by the students-psychologists with different thinking styles are concerned.

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