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Psychology of family

Kotova I.B., Berehznaya A.M.

Empirical studies of the content of the representations about marriage partner among students of pedagogical Universities

The article examines the methodology and results of research carried out to study the particularities of students' representations about their marriage partner.

The authors have studied content and structural particularities of these representations. The choice of sampling, psycho diagnostic instruments and processing methods of empirical data are well justified. The images and characteristics revealed are used as an empirical material. We applied the method of semantic differential. The received data were also exposed to factor analysis that let discover three semantic lines in respondents' representation structure of the marriage partner: personality traits, business qualities and appearance. It was ascertained that the students of pedagogical university have difficulties to build the adequate image of the marriage partner, the parameters of father's image are similar to image characteristics of the marriage partner.

The young girls from complete families, creating the image of the marriage partner set semantic accents with reference to qualities, reflecting interpersonal contacts, but the girls from single-parent family do it with reference to business qualities of the partner and ignore the qualities reflecting positive attitudes to the wife. The indices of deficient representations about the marriage partner typical for the students from incomplete families were discovered. We also examined their negative impact upon marriage relations. We suggest a model of psychological support to young girls who suffer from difficulties and can't achieve self-realization in the field of marriage relations.

Key words: *marriage relations, interpersonal relationship, marriage partner, matrimony, image, role expectations, aspirations, marriage self-realization, subjective experience, value judgment; semantic volume, personal attachment, visual appeal.*

The image of the future partner is the necessary element of marital scenario, which plays a considerable role in the planning of marriage relations. The importance of this group of representations is caused by the fact that the representations of the future partner are able to play the leading role in building the marriage scenario.

The main source of drawing subjective experience that is embodied in the system of representations about the future marriage partner, is the images, ideas and feelings that are reflected in the situations of interpersonal relations. The prospects of

these interesting leads of the further research are explained by the functional role of representations in organization of human mental life. The representations do not only form a kind of connection between external and internal reality, but are the bases of forecasts and future plans.

The experimental part of the research was directed to find out students' representations discovering features of the future marriage partner. We set up the hypothesis that representations of the marriage partner are deficient and do not let to build an integral marital scenario.

General experimental hypothesis was concretized as follows: representations of the marriage partner are complicated psychological phenomena, including a series of value characteristics of the marriage partner that are the most necessary elements at the personality level; these representations can be divided into three lines: personal qualities, business qualities, appearance; the deficient representations about marriage partner can manifest themselves in several forms: a small inventory of value judgments; the incompatibility of ascribed individual characteristics; the extreme dominance of one semantic group at the expense of ignorance or depreciation of others. The young girls from incomplete families who have no brothers show the most deficient representations of the marriage partner. The representations of the young girls with a well-formed image of the marriage partner coincide with the traits of their father and brother. The special programme, including psychological enlightenment in the sphere of marriage relationship was elaborated to stimulate the development of interpersonal skills with the opposite sex.

According to this hypothesis we have formulated the following experimental tasks:

1) to find out individual characteristics of young girls' representations which form marriage partner's image.

2) to discover the main semantic lines of structure of representations of marriage partner among female students at subjective level;

3) to reveal the features of representations about marriage partner of female students studying at the Pedagogical Universities;

4) to study the particularities of the representations about marriage partner of the students from incomplete families and families with one child;

5) to create a programme to develop representations about marriage partner, including psychological enlightenment in the field of marriage relations and psychotherapeutic sessions stimulating development of skills of social interrelations.

The experimental work comprised several stages. At the first stage we used the method of free associations. The respondents (n=480) were asked to give all the associations, that occur to them in response to stimulus statement "The marriage partner-what kind of person he is?"According to the results of free associations, 40 words-reactions of respondents were selected to a given stimulus, (table 1) that were the main elements of method of semantic differential. We added to the list received ten characteristics called to enlarge the semantic space of psychological portrait of the marriage partner: gentle, smart, blue-eyed, faithful, impressive, well-educated, well-groomed, experienced, careful, approachable.

Table 1
Master table of respondents' reaction assignment to stimulus *

Word-reaction	Frequency	Range
Rich	0,93	1
Intelligent	0,90	2
Attractive	0,89	3,5
Kind	0,89	3,5
Interesting	0,86	5
Loving	0,85	6
Generous	0,81	7
Gentle	0,78	8
Skilful	0,76	9
Successful	0,71	10
Practical	0,70	11
Tall	0,68	12,5
Nondrinker	0,68	12,5
Business-like	0,67	14,5
Considerate	0,67	14,5
Strong	0,66	16
Reliable	0,64	17
Calm	0,62	18,5
Energetic	0,62	18,5
Well-proportioned	0,60	20
Responsible	0,59	21
Lively	0,56	23
Sensible	0,56	23
Successful	0,56	23
Blond/Dark-haired	0,51	25
Persistent	0,49	26
Compassioning	0,41	27
Professional	0,34	28
Sincere	0,31	29
Bold	0,30	30,5
Respectful	0,30	30,5
Perspective	0,28	32
Patient	0,26	33,5
Healthy	0,26	33,5
Competent	0,25	35
A good father	0,24	36
Fashionable	0,22	37
Sociable	0,21	38,5
Stylish	0,21	38,5
Economical	0,20	40

*This table contains associations with frequency not less than 0,20.

As role positions are absolutely necessary for stimulus material of semantic differential method, we have pre-assigned the following roles: 1) ideal marriage partner; 2) the most probable marriage partner, 3) typical marriage partner; 4) mother's husband; 5) the real man; 6) the man who attracts successful women; 7) the marriage partner who is usually divorced with; 8) the typical marriage partner of the last century; 9) the marriage partner of the future; 10) the marriage partner of my best friend; 11) the unusual marriage partner; 12) the marriage partner who no one wants to have; 13) the marriage partner of my boss; 14) the marriage partner of my favorite actress; 15) the unreal marriage partner.

As a result of experiment we have received individual matrices of appraisals (n=480), the characteristics corresponding to established roles were summed and the final matrix was analyzed; eventually we have found 4 factors. The most ponderable factor among them was factor 2, explaining 16, 56% of general variance. The pole considered has the following scales: Sensible .857790, gentle.771458, kind .739729; loving .727072, lively .712303, successful .705315.

These scales have close values: considerate .691634 and compassioning .686389.

Examining the semantic sense of discovered statistically significant scales, we specified this unipolar factor as "Personality in the interrelation with the marriage partner". It was found that creating the image of the marriage partner, the female students concentrate on the qualities which are very important for interpersonal relations of the husband and wife. This part of the marriage partner's image is the most powerful.

In the opposition to this pole they place the pole, containing the description of the typical partner, the frequent partner who no one wants to deal with and who is likely to be quickly divorced with.It is feared that the most probable marriage partner is on the same pole.

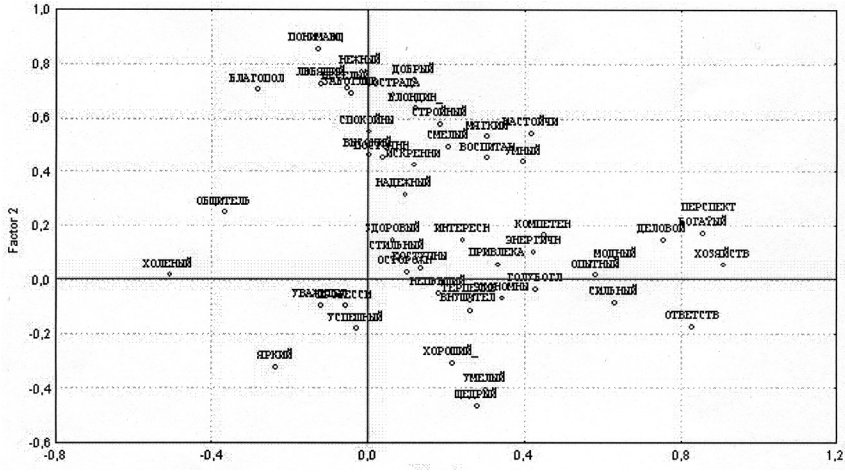
Negative characteristics of interpersonal interaction are ascribed to the best friend's marriage partner that let us suggest a kind of jealousy towards this man. The second by volume within the explained variance is the factor-1 (14,42 %), that is unipolar by its structure. The following scales which are statistically significant, are concentrated on its positive pole: practical .906838; perspective .871316; rich .855428; responsible .827609; business like .750962. The three scales: strong .632518; experienced .627516; professional .579980 have the same significance.

According to the scales distinguished this factor can be marked as "Business qualities of the marriage partner." It unites two groups of business qualities: the qualities that facilitate matrimonial way of life (practical, rich, responsible, strong, experienced) and "supporting" professional career (perspective, responsible, business like, professional). Creating the image of the marriage partner, female students take into consideration business qualities that let organize everyday life and make a career, that will give a necessary financial support.

The analysis of dispersion of role positions show that high business qualities are attributed to the image of a marriage partner of women, who are important for the respondents,- a favourite actress, a female chief, a successful woman or a best friend.

The marriage partner, having no business qualities, identified with those men who no one wants to have as a marriage partner and who quickly divorce with.

We would like to underline that there is certain pessimism in building up a marriage partner's image, because the absence of business qualities is considered as a male typical trait.



Picture. 1. The dispersion of scales according to factor 1 «Business qualities of marriage partner» and factor 2 «Personality in the interrelation with a marriage partner»

The analysis of geometrical dispersion of scales according to the factors (pic. 1) let us see that the most negative characteristic of the marriage partner is

"bright" in accordance to both factors. This characteristic is related to a greater extent to the man's appearance and in female students' representations it points out a person who is unable to deep interpersonal relations, to be compassionate, gentle, kind and other positive personal qualities. Such a marriage partner won't help the wife about the house and can't be successful at work. This characteristic in representations of female students' is an attribute of an egoistic type of the man. This idea is "supported" by some rapprochement of characteristics "bright" and "successful". Some female students believe that the brighter and more handsome man will have a better career. However it doesn't add more attraction to the whole image of the marriage partner.

In the female students' representations there are erroneous connections between such qualities like "rich" and "generous", "business like" and "gentle", "perspective" and "sensible" and etc. The incompatibility between business and personal qualities in a real family can lead to disappointment in the marriage partner and then to destroy matrimonial relations.

The third factor, explaining 13,71% of the general variance is also unipolar. The significant scales on his pole are the following: healthy .957698; attractive .866803;

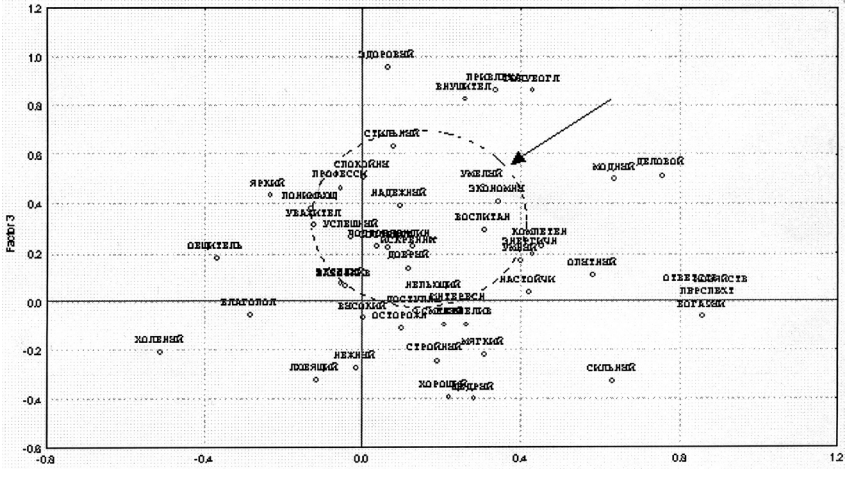
blue-eyed .863016; impressive .830090. The scale "stylish" .637315 is very close to statistically significant scales.

This factor content let us call it "Physical abilities of the marriage partner". This factor is not homogenous, combining qualities from different spheres: somatic (healthy, blue-eyed), subjective (attractive, impressive) and social (stylish). It is well is clearly defined through non-verbal behavior.

The analysis of the dispersion of the objects let us make a conclusion that ideal physical abilities of the marriage partner are considered as something unachievable (the best friend's husband or the female chief's husband) and impossible (it can not happen now, the future partner, unusual partner).

The respondents' pessimistic attitude is reflected by the fact that they place in opposition to this pole the scale "the most likely partner for me". Admiring handsome men, they believe that the beauty as a quality is not compatible with the image of "the real man".

Graphic dispersion of scales in accordance with two factors (pic.2) let us see where their biggest part, making a kind of a core, is raised up- in the semiplane of positive values of the factor "Physical abilities of the partner". In the semiplane of negative values there are such factors as "well-groomed, "good", "strong" and some other physical characteristics. The female students think that the health, attractiveness, impressive view of the potential marriage partner, stylish and fashionable clothes are not only positive indices of physical data, but they attribute them to favorable business qualities.

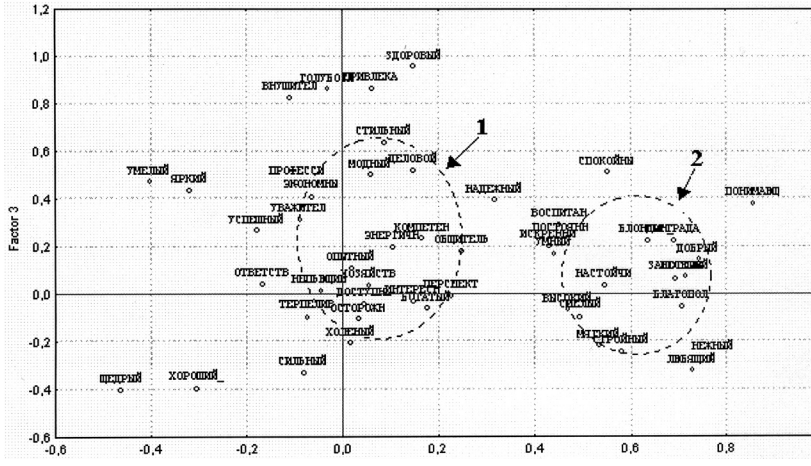


Picture. 2. Dispersion of scales in accordance to the factor 1 «Business qualities of the marriage partner» and factor 3 «Physical abilities of the marriage partner»

In the structure of representations about the marriage partner, examined through the business and physical qualities, personal characteristics, reflecting the relation of the partner to the marriage are placed into the zone of negative values.

For example, qualities like "loving" and "gentle" form a sort of semantic opposition to business qualities and outward appearance of the marriage partner; the qualities like "good", "generous", "strong" do not correspond to students' representations about necessary physical data for the marriage partner.

Graphic dispersion of the scales in the plane of the factors 2 and 3 (pic.3) displays certain diffusion in female students' representations about marriage partner from the point of view interpersonal matrimonial contacts and outward physical actions.



Picture. 3. Dispersion of scales in accordance with factor 2 «Personality in the interaction with the marriage partner» and factor 3 «Physical abilities of the marriage partner»

The first group of scales, placed on the average values of the factor 2 look like more massive. The absence of feeling outpouring in respondents' representations in this case is compensated by business qualities of the marriage partner: competence, experience, energy, practical skills and others, and respect towards the wife. The marriage partner according to received data, is nondrinker and rather perspective at work.

The second sphere of scales reflects the female students' completed image of the marriage partner having a soul closeness with the wife: he is gentle, loving, kind, kind-hearted, well-educated, faithful, compassioning. He has an attractive outward appearance-blond\dark-haired, tall, slim, bold. However this image is practically deprived of business qualities he has only intellect and brings a well-being that are not necessary connected to career achievements of the business partner.

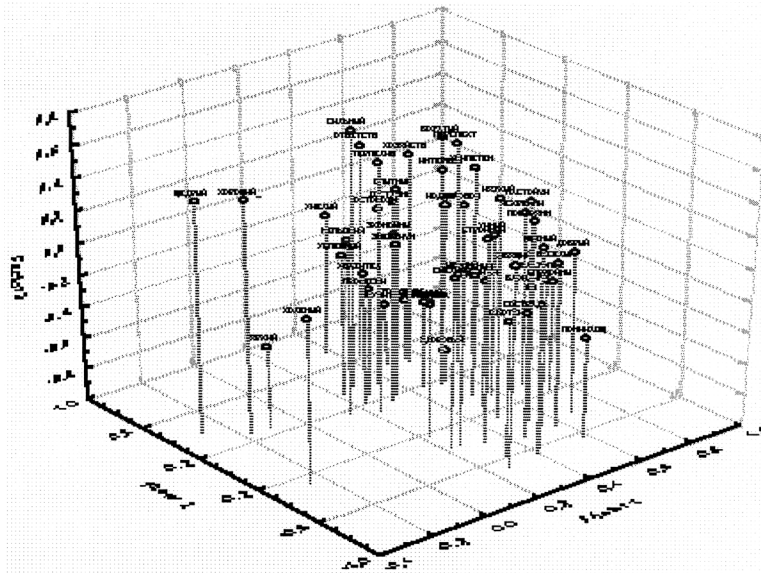
The fourth factor derived after factor analysis explains 10, 82% of general variance. Being unipolar, it has only one statistically significant scale,-interesting .701839. The

scales that are close to statistically significant are: patient .689977; faithful .682477; competent .679259; sincere .646169.

This factor reflects the personal qualities of the marriage partner, which manifest themselves in interactions with other people, so at semantic level it is combined with the factor that is indicated as "Personality in the interaction with the marriage partner." Due to their semantic concurrence we will regard these factors as the unity, and we'll call them «Personality in interpersonal contacts».

Scale position in 3-D space, created by the factors "Business qualities of the marriage partner", «Personality in the interaction with the marriage partner" and "Physical abilities of the marriage partner" (pic.4) attracts our attention to the leading qualities in the structure of marriage partner's image, created by female students, as strong, rich, responsible, perspective, practical, patient, that is to say business qualities. The least valued are the following qualities of the marriage partner: bright, well-groomed, compassioning, considerate, healthy, that means that the students ignore a large part of partner's characteristics which are very important for everyday interaction. Such representations of the marriage partner are able to result in the disappointment of the future marriage.

The comparison of characteristics found according to the respondents' answers in the first group (young girls from single-parent families having no brother (further - group one) and in the second group (young girls from complete families) (further –group 2) let us ferret out some differences.



Picture. 4. Dispersion of scales in 3D-space

The calculation of Student's t-criterion showed the following statistically significant differences in the frequencies of mentioning business and personal qualities: young girls from complete families have more definite representations of personal qualities of the future marriage partner that manifest themselves in the interaction with other people as well, than the girls from incomplete families. The young girls from incomplete families have more developed representations about business qualities of the marriage partner.

In the image of the marriage partner they see first of all, qualities, able to provide financial stability, well being of the family- the wife with children. Husband is a "hunter" who creates financial basis for family life. So the value of personal qualities, reflecting positive attitude to a wife and children are left in the background, they are leveled. However in real life such representations are able to create difficulties, that can take to a divorce and copy mother's life. The young girls from incomplete families, choosing a marriage partner find a man who is able to provide the family financially, but they do not take into consideration personal qualities, such as a good father, patient, considerate, compassioning, careful, gentle, loving, a kind husband and etc.

The girls from complete families appreciate first of all personal qualities of the future partner(0,745), and only then-his business qualities (0,398).

Then these respondents were asked to assess using a seven -scale the correspondence of the found characteristics of the marriage partner relating to the image of desired partner or to father's image. The correlation analysis of the final matrix showed statistically significant correspondence between these two images (p=0,0024). It testifies that the young girls from complete families to a considerate extent rely upon qualities typical for their fathers. As a result the imagined portrait of the marriage partner is more alive than the marriage partner's portrait created by the girls from incomplete families. Besides, they are orientated towards personal qualities of the future marriage partner and their own successful career, and it makes the girls from complete families more ready for life difficulties and let them keep the balance in marital relations.

At the end of our research we have compared the role expectations and aspiration in marriage of the young girls from complete and incomplete families, based on the data received according to REA method by Volkova A.N.

Table 2

Comparison table of the average values of role expectations (RE) and aspiration (A) in accordance with scales of REA of female students of two groups.*

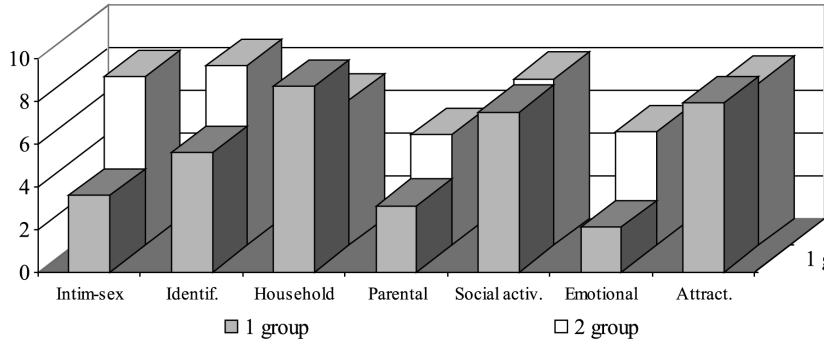
The title of scales	RE			RA			PRE- RA
	1 group	2 group	P1,2≤	1 гр.	2 гр.	P1,2≤	≤
1. Intimate –sexual	3,6	7,9	0,01	8,2	7,6	-	0,01
2. Personal identification with a marriage partner	5,6	8,4	0,01	6,1	8,6	0,01	-
3. Household	8,7	6,8	0,05	4,3	7,9	0,01	0,001

4. Parental-educational	3,1	5,2	0,05	8,9	8,8	-	0,01
5. Social activity	7,5	7,8	-	5,4	6,1	-	-
6. Emotional and psychotherapeutic	2,1	5,3	0,01	4,7	7,6	0,01	0,05
7. Outward attractiveness	7,9	7,6	-	7,8	7,6	-	-

*Note: 1 group – young girls from incomplete families having no brother ; 2 group – young girls from complete families

The analysis of role expectations of young girls from incomplete families (group 1) allows to make a conclusion that in their representations 1) a small role is assigned to intimate-sexual (3,6 scores), parental-educational (3,1 scores) and emotional-psychotherapeutic (2,1 scores) abilities of their marriage partner; 2) there is a strong position about marriage partner's household duties (8,7 scores), realization of social activity (7,5 scores) and the visual appeal (7,9 scores).

The role expectations of the young girls from complete and incomplete families coincide in accordance with scales of social activity and external attractiveness.



Pic. 5. The dispersion of average values of family role expectations of girls from incomplete families (1 group) and complete families (2 group)

The differences in role expectations (pic.5) refer to the following scales:

– intimate-sexual scales: the young girls from complete families claim more from the partner to achieve the sexual harmony in the couple (score 7,9) than the girls from incomplete families (3,6);
– scales of the personal identification with the wife: they expect that the marriage partner will share their interests, value orientations, needs, leisure activities more than the girls from incomplete families (8,4 in comparison with 5,6);
– household occupation scale: they require less in comparison with the girls from incomplete families, that insist upon active role of the husband in every day life problems (6,8 in comparison with 8,7);

– parental-educational scales: to a considerate extent girls from incomplete families expect the marriage partner to fulfill his parental duties (5,2 scores in comparison with c 3,1 scores);
– emotional-psychotherapeutic scales: they expect more, than the girls from incomplete families, the husband's participation in improving family microclimate,
– moral and emotional support, creation of "psychotherapeutic atmosphere" (5,3 scores in comparison with 2,1 scores).

These methods allowed to draw a distinction between role expectations and aspirations of incomplete and complete families according to the scales: intimate-sexual, household, parental-educational and emotional psychotherapeutic. The girls from incomplete families specified requirements towards themselves more than before in the sphere of intimate-sexual relations (from 3,6 scores up to 8,9 scores) and parental-educational functions. The decrease of demands was registered relative to household attitudes: from 8,7 scores up to 4,3 scores. The girls from complete families demonstrate adequate roe expectations and aspirations. The girls from incomplete families demonstrate the biggest distinction between the things they expect from the marriage partner and the things that they are ready to realize in the future.

Summarizing the results the research, it is necessary to underline: 1) stufents' representations of the marriage partner are devided into three groups: personal qualities, that manifest themselves in marital relations; 2)the deficient representations are discovered in the group of young girls from incomplete families; 3) the deficient representations can be found in several forms: a short list of value judgments; incompatibility of the attributed characteristics extreme dominance of characteristics from one semantic group and ignorance or depreciation of other traits; 4) the girls with the well-formed representations about marriage partner have a high percent of correspondence between the attributed qualities and father's or brother's images.

The difficulties that arise while creating marriage partner's image require additional psychological work to overcome these defects.

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Social psychology

Sarychev S.V.

An experimental investigation of small group's reliability in tense situations of joint activity

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The phenomenon of small group's reliability is revealed in this paper within the framework of socio-psychological experiment. Mr. Sarychev worked out a new, dynamic approach to problems of small group's behavior and joint actions in tense situations that became everyday occurrence in nowadays Russia. That original approach was implemented into experimental study performed by the author.

The paper also reveals the internal correlation between fundamental features in small groups – orderliness and reliability. According to experimental data obtained by Mr. Sarychev the leading part while forming the small group's reliability belongs to particular social milieu, especially when group transforms itself and its own milieu.

Key words: *reliability, small group, joint activity, orderliness, tense situation of joint activity, optimal situation of joint activity, experiment*

Significant changes in social and economic conditions of the life of Russian society, taking place between 20–21st centuries, have essential effect upon small groups and collectives. The dynamical processes inherent in a public and political life of our country, significant changes in production forces lead to intense situations in vital activity of small groups and collectives. Being initial cells of any society [6, p. 206] and forming social structure and social relations at society micro level [1], small groups make an essential impact upon the personality of a group member and on the society as well, according to the feedback principle. We do assume that the contents and the basic tendencies of these interrelations are not sufficiently investigated in social psychology in accordance with the modern social situation and should become an research object of psychologists. Conditions of vital activity of small groups were intense not only in the modern Russian history, but also in world of last decades. This fact dictates the necessity of performing the profound study of activity and group behavior in tense situations alongside with optimal ones [21]. The practical need to predict the process and results of joint activity of youth groups in optimal and tense situations makes the research of their reliability necessary.

At the same time, the problem of group reliability in tense and extreme situations is not sufficiently investigated in social psychology. There is no comprehensible theoretical explanation of the facts of group ambiguity dynamics and efficiency of its joint

activity in intense and extreme situations. The theoretical comprehension and empirical research of social - psychological basics of group reliability will allow to study more deeply both joint activity and small group itself.

In conditions of fundamental social, scientific and technical changes the problem of reliability obtains new meaning and demands modern ways of its solving [14]. The necessity of reliability study is also caused by the fact that in intense and extreme situations activity of an individual was mainly studied, and joint activity of the group in specified situations is investigated obviously insufficiently.

Experiment application in the research of group reliability. We assume that experiment is the basic method of research of group reliability in extreme and intense situations of joint activity. We based on the following reasons. Psychologists and sociologists study the problems of experiment in social studies (V.Vundt, V.N.Druzhinin, A.P.Kuprijan, T.V.Kornilova, D.Campbell, A.F.Lazursky, K.Levin, B.F.Lomov, S.Milgram, D.S.Mill, V.D.Nebylitsyn, S.Stauffer, B.M.Teplov, G.I. Chelpanov, etc.) They believe that the experimental method has an active character [4; 5; 8; 9; 10; 11; 16; 17]. K.Levin considers that experiment should also give the explanatory characteristic in psychology. It does not only establish the fact but also explains human behavior determination [9]. This point of view is based on the assumption of dynamic character of cause and effect relation and active researcher's assistance in objects changes. The general way of scientific research in social psychology, therefore, is to move from the theory to experiment in order to find out psychological laws and regularities, to predict the psychological phenomena (performing the psychological forecast).

The consideration of the experiment structure as the way to check the hypothesis is an important methodological problem of social psychology. Methods of interview, conversation, supervision, questioning, tests can be used at some stages of experimental research subjected to investigate the social and social - psychological phenomena. Russian researchers G.M.Andreeva, V.N.Druzhinin, A.P.Kuprijan, etc. believe that these methods can precede experiment, prepare it or create appropriate conditions for it, to accompany it, to follow after a stage of active influence on experimental variables. In this case experiment is not only the way of measurement and control of variables, but also the way to organize the research and integrate other methods [1; 4; 7].

Problems connected with laboratory and natural experiments application in social - psychological research, its compatibility and validity are estimated distinctly by social psychologists. G.M.Andreeva, D.Campbell, A.P.Kuprijan, A.V.Petrovsky, P.N.Shihirev sustain wide use of laboratory experiment in research of groups in social psychology but they fairly point out that the facts received this way have low validity and hardly correspond with the social context of behavior and activity [1; 7; 8; 13; 20].

Their opponents claim that laboratory experiment gives additional opportunities for comprehensive control over variables and eliciting of the investigated psychological phenomenon "in its pure state". Laboratory experiment is the mostly developed one in psychology. Psychologists started to develop this method before other methods therefore it is being used more widely, especially in American social psychology

[11; 20, p. 91; 22]. American social psychologists also assume that laboratory experiment is capable to give the unequivocal proof of causality; it fits better the needs to control external variables as well as to investigate values and parameters of complex experimental variables [22].

It is obvious, that laboratory experiment in social psychology does possess the certain advantages that cannot be ignored [16]. The solution of the problem, probably, does not come to use or to not use laboratory experiment, but in finding ways to achieve purposes and use its results and establishment of circumstances and means that allows to validate the data acquired in laboratory experiment. Small group reliability as a subject of our research demands to combine both laboratory and natural experiments so far as a full-view reproduction of tense conditions is not acceptable because of ethical reasons.

Analyzing the problem of natural and laboratory intercorrelation of experiment from the point of view of objective method use in psychology, B.M.Teplov supposed that its opposition is incorrect since they solve various problems while performing scientific research in psychology. Natural experiment is capable to put forward the vital problems, allows to contemplate hypotheses, gives an opportunity to apply the laws that already settled to an explanation of some challenges and to research the substantial aspects of activity. Laboratory experiment makes it possible to carry out scientific abstraction not only mentally but practically, to verify the estimated hypotheses and to open the mechanism of the investigated phenomena [16]. According to psychologists F.Genov, B.F.Lomov, A.S.Tchernyshev, etc. it is necessary to study group in social - significant situations by means of laboratory experiment while keeping joint activity in the social context. These researchers specify necessity to use critical situations while modeling and to use real groups as the object of laboratory experiment [2; 10; 17].

There is a number of means to manage laboratory experiment in social psychology that are traditionally applied in order to fit the situation closer to real one and to increase ecological validity of the obtained data:

- Setting of the task that is difficult enough and has high significance for participants of experiment;
- The task itself should not be too bulky and difficult as it negatively influences on the experimental situation;
- It is important to work out the instruction for participants of experiment in order to equip them with precise and clear purpose and to obtain understanding the task identically.

The reasons, mentioned above allow to outline the general strategy of research of reliability of group in tense situations of joint activity. We assume that it's expedient to use different groups of methods: observation, polling methods, hardware techniques. We has elected a combination of laboratory and natural experiment as a form of the organization of group reliability research. It is expedient to select the natural experiment as the leading method of the research organization because it allows

studying the real groups in real intense situations. It must be completed with laboratory experiment that will allow to allocate the investigated psychological phenomena "in the pure state" and to specify the data received in natural experiment.

The positions mentioned above were basic to outline the methodical block used by us for an experimental research of reliability of group in tense and extreme situations of joint activity. The methodical block integrally combines methods of observation, interrogation and device-model of joint activity. Devices "Arch", GSI-7 (Group's Sensomotor Integrator) activate the process and properties of group joint activity [18]. That methodical block was applied in social-psychological experiment both laboratory and natural ones. We suppose that group joint activity modeling by means of hardware techniques must be the prior one in laboratory experiment.

Key parameters of group reliability experimental research. According to the logic of experimental research realization, it is necessary to define its key parameters: experimental and not experimental variables, ways of its control and measurement, ways of data processing in to order to specify the plan of research.

The subject of the experimental research is group reliability in intense situations of joint activity. Reliability of group is the dependent experimental variable of our research. The independent experimental variable is the situation of joint activity acts. The independent experimental variable accepted three major meanings during research realization: optimal, tense and extreme situations of joint activity. We assume that group reliability in intense and extreme situations of joint activity can be described basically by the following parameters:

- Effectiveness;
- Interaction of group members;
- Coordination of actions.

Each of parameters of reliability can be measured by means of empirical indexes that are apparent and can be directly measured by means of corresponding techniques [18].

It is essential that groups researched by us differed on the level of organization. In order to maintain the correctness of research and data comparability we came to the necessity to divide the group on the basis of orderliness. We have taken an advantage of typology of groups organization [17, p. 56] according to which three types of groups are allocated. The mentioned typology depends upon such group behavioral characteristics, as group activity success, group contribution into the success of the organization of higher level (school, the center, etc.), the level collective relations in primary collective [17].

General strategy of the experimental research of group reliability in tense and extreme situations of joint activity derived from the most widespread strategy of experiment - strategy of "experimental and control groups". Receding from that strategy we recognized that combining natural and laboratory experiments and uses of corresponding techniques does not make the realization of such strategy obviously possible. One more argument for change of traditional strategy of an experimental

research is that the characteristic acting in our research as the hypothetical reason of change by a dependent experimental variable (i.e. an experimental pulse), namely the situation of joint activity of group, changes not smoothly, but discretely and has more than two gradation in its intensity, namely - three.

It is not also possible to level all groups on orderliness as it should be made according to the initial requirements showed to the organization of experiment in social sciences [4; 7; 8]. Therefore groups of a high, average and low level of orderliness were studied in comparison, compared on the basic investigated parameters of reliability.

We intentionally selected the groups identical on the basic non experimental (neutral) variables. Practically all groups were educational; the basic kind of activity was educational; all group members related to the same age group (an early youth age). For all groups participating in research, the joint activity carried out by group was important, interesting, prestigious and significant.

So, the general plan of the experimental research was to place groups with a various degree of organization in optimal and tense situations of joint group activity (i.e. manipulating an independent experimental variable) and putting, hence, in action the hypothetical reason (entering the experimental impulse), generating hypothetical consequences.

Connection between the situations of joint activity of group reliability is a hypothetical assumption which realizes cause and effect relations in our research. Connection between the hypothetical reason and hypothetical consequence should be shown in various qualitative and quantitative changes of the basic parameters of reliability in groups with a various degree of organization in tense situations in comparison with optimal ones. The hypothesis of the research can be considered as empirically verified if the significant distinctions between the basic parameters of reliability in extreme, tense and optimal situations of group joint activity are set at the organization level by means of the methodical block in laboratory and field experiment.

Use of devices - models in the experimental research of group reliability. The wide use of hardware techniques in research of social - psychological problems of group in natural and laboratory experiments are presented in Russian psychologists works. There were known ways and requirements to use these devices for studying joint activity [3; 15; 17; 18; 19]. F.D.Gorbov developed the following requirements for modeling joint (interdependent and interconnected) activity of group according to which he created homeostatic technique:

- Group activity should be easy, with no demand of preliminary development of specific skills;
- Activity should be interconnected, activity and its{her} course should be objectivated;
- The estimation of activity results should be carried out mediated through devices [3, p. 12].
- Models should give objective data (both psychological and non-psychological) about efficiency of group activity;

- Models of joint activity should fit to specific properties of models of the social - psychological phenomena, i.e. including their basic properties;
- The experimental model should correspond to group activity, but should not copy a concrete case (i.e. a simulator) [3].

Devices - models of joint activity «Arch» and GSI - 7 rather fully correspond to the specified requirements and possess a number of additional valuable properties:

- he big degree of freedom, the superiority euristic above algorithmic ways of task solving are performed in the use of mentioned device;
- The result of joint activity is not the one to be realized but also the process of the activity itself
- Feedback information is accomplished (from the device - to group) so the opportunity to influence on the process of joint activity is realized as well;
- The opportunity to model official and informal interaction and process of the organization, its dynamics and properties is accomplished [17; 18].

The modeling of intense situations is required for the research of the various aspects of group reliability, the joint activity organization flexibility and «survival rate», ability of the group to be reconstructed. That can be achieved due to subject importance raising for the examinees who work with the devices - models, and also high motivation introduction. For this purpose we used competition between groups for championship, public announcement of results, etc. In 60-s and 90-s of the twentieth century in Kursk social - psychological laboratory increase of the degree of intensity of the situation of joint activity was achieved due to introduction of conditional punishment by external irritants (a sharp sound in headphones, easy impact by electric current in a wrist) while using GSI - 7 with detachable device «Stressor». Forms of punishment realization corresponded with the real situations:

- « One for all »;
- « All for one »;
- « Everyone for itself »;
- « One for all, all for one ».

The work with GSI - 7 in conditions with no return information for the majority of members of group when all return information on the course of performance of the task is accessible only to the head of group was also used. That modifications were applied by V.J.Podoroga, A.S.Tchernyshev, E.A.Shanin for various purposes [15; 17; 19].

We had developed several modifications of experimental procedures of work with devices - models to study tense situations of joint activity. The essence of updating is to create situations of organizational uncertainty, novelty, unexpectedness. Some modifications can be used both at work with «Arch» and GSI - 7. Such three procedures have been developed:

- Activity in highly reasonable conditions («setting a record»);
- Activity in conditions of a limit of time («readout of time»);
- Exception or replacement of one of group's members.

The conditions mentioned above are introduced by the instruction which is given

by the experimenter. In the procedure of «setting a record» the purpose to carry out a familiar task (to collect «Arch» or to lead movable operating element through a labyrinth of GSI - 7) is set for the group. The group has to perform the task as soon as possible and show the best time («record»). Our data testify that in this procedure average sizes of the basic psychological and non-psychological parameters are higher, than the same parameters in background conditions. Besides highly motivated conditions of joint activity can conduct to reorganization of the organization of joint activity.

Procedure with replacement or removing of one person is also interesting because it compels members of the group to change interaction (sequence and coordination of individual actions, demands the additional coordination of actions) and functional duties of group members. «Old» way of organizing of joint activity developed earlier can not be applied as there is a necessity to create a new way of organizing according to the change of situation. Additional collisions can be brought by removing or replacement of the leader - organizer (or, on the contrary, the outsider).

One of the variants of mentioned modifications is to deprive one of the group members of opportunity to participate actively in joint activity (by means of putting on opaque glasses). Even if this member of the group participates in the joint activity he can carry out only a number of the limited functions under the direction of others; the group will need to bring some changes into the organization of the joint activity and interaction.

The situation of "readout of time" is perceived by examinees rather emotionally, with the great tension. Introduction of such external condition creates difficulties of interaction, conducts to increase in number of mistakes, and in some groups - to destruction of joint activity, to a communicative shock (it concerns a small number of groups with low level of orderliness).

The next part of the article is devoted to the procedure modifications used only for GSI-7. One of them was named «Tracing-paper» (one of the examined groups named this procedure «flight in fog»). The key feature of this procedure is that the sheet of a translucent tracing-paper is imposed on the information block of the integrator that all members of the group receive the only part of feedback information. This procedure creates significant organizational uncertainty and so intensity of mutual relations and interaction. The described procedure can be combined with another - when the truncated information comes only to one of the group members (for example, to the leader). It is obvious that in this case the research procedure goes in a bit different direction and even it is more complex in interaction.

Some modifications of experimental procedures has been developed by us specially for «Arch». The «Anonymous Arch» is the modification of the device itself. It is distinguished from the originally developed design because its elements are not numbered so the assembly of «Anonymous Arch» becomes a very difficult task. Difficulties result from the fact that joint activity in this case is rather difficult to order, i.e. it is practically impossible to create the concrete script with the certain sequence of actions, to provide unequivocally set of functions for each member of the group. Rather essential

degree of uncertainty of interaction is shown both in behavior and verbal level.

Another procedure of modification suggests creating difficulties in realization of joint activity by fixing one of the hands (basically the right one) with the belt and assembling of «Arch» by a free hand. In the given procedure the significant tension created by the fact that the single person assemblies «Arch» by one hand: to put the collected block of elements on the basis, to close the lock, etc. Actions which usually are carried out by a single person should now be carried out by two or several examinees. The higher level of the requirements to interaction, interference, coordination of actions, and also to endurance{quotation} and mutual tolerance of examinees are manifested.

The other group of modified procedures assumes simultaneous use of two «Arches». The first one means simultaneous assembly of two «Arches» by one group. The appearance of «Arches» is absolutely identical and their elements are completely similar also. However elements of one «Arch» do not fit the other «Arch» because of different joint of pins and apertures. Assembly of two «Arches» prompts the group to search for reserves of the organization and demands precise distribution of functions as well as closer interaction.

The task of collecting of two «Arches» which are spatially spased (on different tables) causes significant difficulties. It is required either to create the new organization of joint activity or to duplicate the task. The essential information about the group can be obtained according to the division into micro groups, the structure and new functional duties within them, and according to the principles of mutual aid between micro groups. One of the probable tasks is that the experimenter suggests collecting one of two «Arches» from mixed elements and gives examinees one base of «Arch». In this case examinees should understand, that it is necessary to collect and join all elements of both «Arches» and then one of them to reject.

Interesting opportunities in terms of tense situation modeling of the group joint activity in laboratory experiment are produced by implementation of intergroup competition or public competition of two groups (for example, two groups of schoolboys at the presence of the school or center collective). We applied three variants of that modification: assembling of «Arch» at the presence of other group, competition of two groups in assembling of «Arch» (internal or «correspondence»), competition in assembling of «Arch» of two groups when elements of two «Arches» mixed up on one table. Variants are enumerated according to the increase of tension during the performance of joint activity. Judging by the experimental procedures described above, we came to conclusion that designing different programs of laboratory experiment is possible against the specific targets of research

Results of the experiment. The objective of the research of youth group reliability carried out in 1988-2006 was to investigate reliability of the group in optimal and tense situations of joint activity. Empirical base of the research was real youth groups (girls and young men aged 15-18) of students, schoolboys and students of professional colleges of Kursk and Kursk area: school classes, educational groups of professional

schools of system of initial vocational training (trade school), student's groups of Kursk State University, educational groups at school of youth leaders of Kursk region «Komsorg», the regional youth center «Monolith». We used the following situations of joint activity in natural experiment:

- Situations of intergroup competition;
- The situations, demanding to adjust joint actions with lack of time, in short terms;
- The situations demanding joint actions of the group in conditions of uncertainty;
- Situations in which the significant social environment gives biased estimation of the results of joint activity of the group;
- Situations with the increased responsibility, with «the high price» for a mistake in joint activity;
- Situations when the new kind of joint activity which that has not any analogues or similar cases in group experience of joint activity accustoms;
- Situations when some members leave the group and-or new people «enters» (i.e. the structure of the group, its composition change).

The important feature of all investigated groups was that all groups were already mature commonalities by the time of performing the research and continued functioning after the end of the research. Measurement of parameters of orderliness had been performed during the period which directly preceded the experimental research (introduction of an experimental impulse).

Highly organized groups in intense situations of joint activity carry out joint activity trouble-free, with the minimal disorder of the best and worse results. It is the most typical for highly motivated activity in tense situations. However in everyday activity the level of non-failure operation is rather high (91 % of tasks are carried out trouble-free) in an intense situation. The basic empirical reviewers of productivity were interrelated. Its level correlates with a degree of intensity of the situation in joint activity of the group: the higher the degree of intensity of the situation of joint activity the fewer refusals; the higher efficiency is, the less disorder of the maximal and minimal manifested results. The productivity of the highly organized groups synthesized the positive sides of the groups with an average and low level of orderliness: increase of efficiency and increase of non-failure operation in intense situations of joint activity.

Members of the highly organized groups impart great importance to the coordination of joint actions and careful working out of the plan of forthcoming joint activity. The rough (orientation) part of joint activity in intense situations has the greater densities, than in optimum situations. The substantial side of the plan of the forthcoming joint activity in the intense situation was its improvement in comparison with the optimal situation. The quality of such plan is characterized by the careful distribution of functions and capability of each member of the group to prove expediency of the distribution of these functions as well as stability of the plan. The important role in the coordination of joint activity belong to the leaders of highly organized groups whose vision of forthcoming and current joint activity is «conceptual», they can see

the situation as a whole. The highly organized groups in tense situations of joint activity are characterized by completeness of conformity of joint activity to the plan which is developed in the rough part of the activity. It is often combined with group's ability to bring a corrective amendment to the plan in accordance with changing conditions. Such groups are capable to perform self-control of joint activity according to the ideal image of result and process of joint activity (i.e. the plan) in intense situations of joint activity.

Interaction in highly organized groups in intense situations of joint activity is directed to the task integration of the group, efforts of the group members are concentrated on the key moments of the interaction which is necessary for achievement of the group purposes. Members of such groups feel the necessity and are capable to change the interaction in the name of achievement of the best possible result. In tense situations of joint activity they aspire to create more perfect form of the organization of vital activity due to reorganization of interaction. The maximal value of the basic empirical indexes are reached in highly motivated activity in the intense situation, and members of such groups aspire to carry out the careful account of probable consequences from the changes brought into interaction. The initiative in interaction is proceeded by the majority of members of such groups. In the intense situation of joint activity interaction becomes more active. The highly organized groups in tense situations of joint activity are characterized by effective balance between mutual relations and interactions at high flexibility, variability and adequacy of interaction. The highly organized groups can be characterized as reliable, and results of their joint activity in intense situations are predictable.

Mean organized groups operate trouble-free in highly motivated activity in intense situations of joint activity, in usual joint activity in intense situations non-failure operation is a little bit lower. The high level of non-failure operation in intense situations of joint activity, however, is reached{achieved} at the expense of the lower level of efficiency of joint activity in comparison with highly organized groups. Groups of this type are characterized with increase in disorder of the best and worse results in intense situations of joint activity in comparison with optimum situations.

The increase in densities of a rough part of joint activity is typical to mean organized groups (as well as for highly organized groups) in intense situations in comparison with optimum situations. Mean organized groups featured by decrease in quality of the plan of joint activity due to often use of «standard» receptions, strengthening conventionality. The quality of the plan is also reduced because members of such groups frequently «don not see» changes of the situation of joint activity and if they notice, they do not estimate their novelty, new quality of the situation. This way of actions coordination which develops spontaneously as the examinees say «by itself» is fixed and kept at the majority of the groups of this type. Developing the plan of joint activity, these groups in the greater measure are focused on optimum, instead of intense situations of joint activity. The coordination of functions for members of the mean organized groups represents difficulty. Groups of this type in intense situations

of joint activity reduce a degree of conformity of joint activity to the plan because the group creates only partial rough basis of joint activity.

Interaction in mean organized groups in intense situations of joint activity is characterized by the expressed motivation of group members of the search of an optimum way of interaction, aspiration to change interaction for the activity result improvement. The majority of mean organized groups nevertheless cannot change interaction for optimization of joint activity of groups in intense situations of joint activity. Reduction of efficiency in intense situations is connected in comparison with optimum situations.

Low organized groups are characterized by essential reduction of non-failure operation in tense situations of joint activity in comparison with optimal ones, the number of refusals in highly motivated activity in intense situations is greatly grows. Groups of this type, nevertheless, are capable to increase efficiency of joint activity in intense situations (only in highly motivated activity), but at the expense of increase in disorder of the best and worse parameters of productivity and reduction of non-failure operation. In intense situations productivity becomes unpredictable in joint activity.

The prevalence of the performing part of joint activity over the rough part are inherent to the low organized groups both in optimal and in tense situations. In tense situations of joint activity in comparison with optimum situations densities of orientation in structure of joint activity is reduced. The plan of forthcoming joint activity is lacking or it is characterized by poor quality. Even if there is a plan the level of expressiveness of the empirical reviewer «conformity of activity to the plan» is reduced in intense situations. Thus, the coordination of actions and functions is carried out spontaneously, group members of low organized groups do not aspire to regulate and coordinate it either in optimum or in intense situations of joint activity.

Interaction in intense situations of joint activity does not correspond either to the group purposes, or to opportunities of the group. The level of expressiveness of interaction equally low in optimum and in intense situations of joint activity. As there is no plan of the way of interaction worked out beforehand its optimization situations for low organized groups is not feasible in intense. Just few members of low organized group were fully participated in the interaction of joint activity in intense situations, and full affiliation reduced with the increase of the degree of intensity of the situation of joint activity. Maximal affiliation in interaction is observed in highly motivated joint activity.

So, groups of different level of organization are characterized by qualitatively various types of dynamics of the basic parameters of reliability in intense situations of joint activity.

Concluding remarks. There are significant distinctions of the levels of expressiveness and dynamics of the basic parameters of reliability in intense situations of joint activity of groups of different level of organization. Qualitative feature of reliability in intense situations of groups of the mean and high level of organization is full non-failure operation in highly motivated activity.

Reliability of the group in intense situations of joint activity is determined by organization of the group. Groups of different various levels of organization are characterized by various dynamics of the basic parameters of reliability in intense and extreme situations of joint activity. The cause and effect relation between reliability and organization is not linear in its origin, and has complex and mediated character. Representing itself as mediated link of reliability, organization changes the meaning of the basic parameters of reliability in intense situations of joint activity of group.

Reliable groups in extreme situations of joint activity are characterized by relatively little change of the basic parameters of reliability. Nevertheless, the amount of passing refusals (mistakes) appreciably grows. Besides in comparison with optimum situations of joint activity in extreme situations the disorder of the best and bad results (in 1,5-2 times) grows. So both extremely high and rather low productivity of joint activity becomes obvious in extreme situations.

According to its psychological meaning, reliability acts as a system of group motives and social sets on making the organization of joint activity perfect in intense situations.

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Historical psychology

Shkuratov V.A.

Phases of the paradigm. (a draft of psychological and historical epistemology) P. 2*

In the first part of this article the paradigm was defined as the contrast of the narradigm. Historical period of the paradigm is divided into lengths which are called the phases of the paradigm: heuristical, magical, philosophical, scientific and the phase of astroregulation. In the first part of the article we described the heuristical and magical phases of the paradigm.In the final part of the article we continue to discuss the role of magic in the genesis of natural sciences. The author deals with pre-history psychology, in particular, its occulted and demonical inclination. The definitions of philosophical, scientific and astroregulation phases are given. In conclusion the author supposes the possibility of the enlargement of the family of "digms" through the medium of the narradigm, videodigm and audiodigm.

Key words: *magical phase of the modern paradigm, structure of the paradigm, demonology, pre-history psychology, philosophical phase of the paradigm, scientific phase of the paradigm, astroregulation.*

Most of scientist in modern western epistemology are not sure, that Copernicus's revolution in psychology has been made. «Up till now psychology didn't have Darwin's and Copernicus's revolution though there are no grounds a priori to think that such revolution won't take place. But as at the moment it doesn't exist psychological achievements are like physical achievements in pre- Copernicus period (theory of epicycles, alchemy) or pre-Darwin's biology (theory of classifications, vitalism) (Wetherick, 2000, p.695)In the suggested scheme we do not mean pre- Copernicus science but the magic stage of the contemporary paradigm. The label "transition period" in the context of world picture of Renaissance is the position between "teocentrism" of Middle Ages and "naturecentrism" of Modern History. However this transitional moment represents a quite consolidated outlook-anthropocentrism. The respectful desire of one of God's creatures to find out his relashionship with the God using godlike part of human soul –brain-is replaced by anthems in honour of " pharos of the Universe" who, perhaps, is superior to the Maker.

But the paradigm is not a world picture. Koon T. doesn't give its structure.

That's why I will use the structural paradigm model of Madsen K., which is provided by a thoroughly elaborated historical and psychological theory. In scientific model

* The ending . The beginning – Russian psychological journal - 2006, volume 3, №4.

of this above-mentioned author, the structure of normal science is defined by " full scientific texts" with the following features: 1) the description of the facts observed (a stratum of data); 2) theoretical explanations and hypotheses (hypothesis stratum); 3) philosophical definitions of the object (meta stratum). The goal of the stratum of data is to give information about separate observations and their interrelations. The goal of hypothesis stratum is to systemize the information in the form of explanations forming causal relations between facts and in the form of interpretations, creating stable values. The goal of meta stratum is to create the basic understanding, "conceptual frame", disciplinary matrix for meta model or for other levels of discourse. Meta model is extremely general and abstract model of the world with associated scientific and philosophical premises for its development (Madsen, 1988, p. 27).

Thus we have a vertical organization of the knowledge, in its foundation there is cognitive sensibility (instrumental or without help of special instruments)

It is surmounted by a general summa of world ideas. «Up» and «down» of the paradigm is connected by probabilistic estimations to introduce the observed fact to integral world outlook, and the last aim –to supply empirical material. In hypotheses which are to be verified by the moment of heuristics is filtrated and detached from inaccessible layers of cognitive sensibility for verification. But the medium part of the paradigm is a simple mediator between the pure reason and the sensibility; and this is a quite complicated and autonomous set of hypotheses, models, theories, here they cumulate terminological framework of a concrete science, give definitions of its subject, make the design of its disciplines and sections.

The system and concept core of modern psychology is very old, antique. Sometimes it seems that the list of basic mental states and processes together with reasoning about the connection between the body and mentality traveled from pages of Aristotle's tractate to modern text-books. It is the millenary reconstitution of the architectonics of notion in psychological science, let Ebbingauze G. to offer a popular subject about two births of science about the psyche: first of all in Antiquity, and secondly in Modern History, almost two thousands years later. (see Ebbingauze G, 1998). However to assess historical distance, it is necessary to remember that Aristotle's psychology isn't a theory of individual mentality and it connects the living matter with hierarchy of universal forms among which there is a vegetative soul and immortal planetary intellect. Philosophical and epistemological Weltanschauung, subject, methods in two cases are quite different. The things which were taken in an easy state of mind of Ebbingauze G. for reborning entirely after a millenary sleep science, they are just a part of the midsection which has quite different "roof" and "basement".

It is interesting to underline that under the time of Renaissance they regarded the classifications of abilities and aspirations as remains that support educational process. The net of Aristotel's notions, used by Melankhtonom and other figures of the Reformation for teaching the basis of the Protentastism , will be used under the name of "psychology" by X. Walf not to built the religion , but the science- on the "basement" and under " the roof" of new European natural sciences. The Renaissance has found

more poignant and thrilling method of studying the soul in the body than scholastic arguments. At the beginning of XVII century, the humanist and erudite R. Berton mentions "boring treatise" de Anima (about the soul) that relates this subject in short. (R. Berton, 2005, p.274) The English author gives an appropriate place for co-ordination of Aristotle's reasons and medical symptoms. However he is very interested in blossoming in XV- XVI centuries the science of spirits- demonology. This is where there is an attraction for searching minds of the time, and moreover, without any irony, for outstanding minds! This science is looking forward the facts, it adjusts their manufacturing. The facts are provided by occulted occupations, whose popularity and prestige are increasing, and in parallel, by their opponents' circle from university and judicial cloaks. The science and knowledge, as a rule, are marching together. M. Foucault found out that the first tandem while transferring to Modern Time, was the inquisition and natural sciences. They helped each other to develop because they were equally inclined for the search of causes and consequences using experimental material. The rise of socio- anthropological sciences, the French poststructuralist refers to XIX century, to alliance of positivism and bourgeois administrative- police system. He ranked psychology among disciplinary- fiscal circle of sciences. (see Foucault, 1975). The famous French author, I dare say, can be corrected because it was pre-modern experimental psychology. Natural sciences and psychology worked together with punitive power. It tried to find out mechanisms and motives of human touch to the world of incomprehensible emotional and spiritual forces for ignoramuses. It defined the jurisdiction and ethics of super nature, divided the methods into legal ones and criminal ones, gathered and systemized the facts, created the theories. You can be carried away by counting the victims of the intellect. There are a lot of them in the field of pre-modern science then in the field of the modern one. But the matter is in the antagonism of science and power, and (if it is possible to say) in the quickly becoming obsolete experimental material. In pre-modern experimental psychology as well as the modern one, the researcher and the respondent can exchange places. But the conditions of the experiment are quite different. To be the respondent in the study of the curious G. Boden (one of creators of the theory of the legal state and the toleration, he is also the author of "Cacodemonomania of the socerers" and the investigator-judge in a big witch-hunt at the end of the XVI c.) is not the same as to take part in researches of W. Wound and E. Titchener. The strong and successful people are able to pass the procedure of experimental demonology from the object to the subject.

It is difficult for us to combine the feeling of tolerance with inquisitor's desire

for witch hunt. The Renaissance knowledge for modern wit is so contradictory, that it can be only served under the layer of deep retouching. In our retrospective view, Renaissance is created by intersection of two epistemological spheres- aristotélisme and new European experimental science. It has to gather the reproaches of the past and appeals of the future. I will underline that I am not keen on describing culture and thinking type of Renaissance. I am just using some material for modeling magic phase of modern paradigm. This phase is remarkable by hypertrophied and

inadequate use of body instruments and anthropomorphic world images relatively to cognitive tasks of modern type. The paradigm on the material of Renaissance (if we take into consideration model structure of normal Koon's science isn't assembled, the stratum of data and meta stratum, can not be joined to contemporary hypotheses.

The above said doesn't mean that Renaissance should be treated in the history of cognition as something inconceivable and titanic or schizophrenic and paranoiac. On the contrary, there are attempts to determine its cultural and cognitive disposition as more or less noncontradictory system. (see. Zinguer, Schott, 1998).

We can not omit the role which was played by the Art in extremely difficult cultural complex of the Renaissance. Under the Renaissance the Art and the Science were very closed to each other. It isn't the prolongation of the primitive syncretism (The Art and the Science have been well established in medieval Europe and occupied a certain niche), but it was a new step forward development of new European culture. The artist of the Renaissance has received a secularized prerogative of the Maker. Creating the artistic worlds he acts as the Maker. «The greatest painting consists in portraits, competing with God's art, in painting the perfect creature, the most difficult and elevated- that one who he has created in his own image – the man." (Garin, 1986, p.324). For such a competition, it is necessary to penetrate into the very core of the things, and the painting comes out as the science, and the painter as a scientist. The artists of the XV-XVI centuries really make discoveries in the anatomy, physiology, mechanics and optics, needless to say that Leonardo da Vinci's notes and drawings are the storehouse of different technical ideas and ideas of natural-science. "But in these drawings we can find human desire to put the man on the edge of the divine and devilish, science and magic, exalted art and summoning occulted forces." (Op. Cit., p.242) The movement inside painting-science is psychologically swung between researcher's interest to unknown world and self-assertion of the artist in the contest with the Maker. If the first one is based upon the system and method, the second one assumes the use of occulted means for acquiring supernatural knowledge and power. That's why Leonardo da Vinci's notes crumble into unsystematic and chaotic sketches. "His experimental method, as well as his technology, his impossible and mistakenly calculated mechanisms, create the general picture of widespread search and fantastic decisions while striking general definitions sometimes disclose irregularity of philosophical methods. "Science of painting", pretending to create the general conception of being in the form of the visual concept, developing, looses its actuality. (Op. Cit., p.275). We won't look for the enigma of the unique genius. Painting is a science, it is a contradictory concept. It is the craft with the hints to systematic knowledge, but cognition here is inconsistent, and the artist is not a systematic researcher, but the creator of valued esthetic works. He is the searcher of particular art force, that is very closed to magic. Instead of looking for a systematic method, he, in the opinion of modern methodology, slides down to competing self-assertion. Instead of creating valued esthetic masterpieces, he uses the picture as a cognitive object, where they find a hint to instrumental moment of magic impact. The painter uses the image and for staying

in the realm of spirits and for esthetic fixing of harmony and the beauty of nature. But true meanings of technical and measuring operations become comprehensible as we take away world outlook basis- alive manipulated world. It is replaced by abstract physical nature, its transference, that scientists-specialists study with the help of equipment. Their ancestor – the thinker deals with the whole neutralized macrocosm. This is the end of the magic phase, though magic itself, of course, doesn't disappear. The syncretical inheritance of the magic is divided between industry and science. The practice becomes different: intricately mediate, special, technological. It can not be related with knowledge through individual order of motives, manipulations, imagination and body movements. Transforming movement in Modern History becomes the leading force as a basis for equipment industry. The exaggerated fantasies of the magicians are cut short by technical and economic calculations, the system of engineering reasons and financial estimates. Of course, the equipment can be called the magic of our time (M Khideger), but only if you continue to think in old personalized mythology of cosmic elements and forces with which the transformer communicates more or less directly, through the chain of short manipulations. This order of the short contact is replaced in the XVII th century by a long procedure of technological verifications, and it transforms into metaphors, poems, private esoteric occupations and their claims for the role of technical discoveries and technologies are treated now like queer things. Their time has fluttered away with the culture of immediate body; the time of machines has crossed them out from the sphere of serious industrial occupations. They stop to interest business people, bring discoveries and practical results to the society, because they do not blend with scientific order of the verifications and deprived of the support of the world outlook.

Philosophical phase. I'll tell you again that philosophy and philosophical phase of the paradigm are not synonyms. Philosophy is a – polysemantic term. The knowledge of Antiquity, Middle Ages, Renaissance, Modern History and our days is compiled into this term. Different reasonings are mixed with parts of sciences, everyday experience, literature, arts, religion mythology. There is also a shadow of the science without empirical basis, systematically built picture of the world, systematic analysis of the structure and perception of this picture (world outlook).To synthesize all the knowledge in an unique picture is extremely difficult, philosophy more often shows different strategies and ways of outlook, consolidating the thinker and the world in gnosiological relationship. The efforts of the usual person to enrich world outlook and to realize his place in this world are typologically close professionally to philosophical work though, of course, they rarely reach completion and logical symmetry. The youth is the time of rising of self-awareness, it's the time to try to develop your own world outlook. These efforts precede quite professional and specialized self-determination, including thinking activity.

So, the essense of philosophy as the paradigm phase is the formation of world outlook. Pholosophical text is an enlarged meta stratum, including theoretical background and a layer of corroborating facts.

Magic synthesis, the attempt to put the movement into axiology with an active and mobile man, the man who would reproduce himself as the integration of all elements of medieval knowledge-bookish, logic, effective –this person has reached the limits of his resources. The Middle Ages ended, the Renaissance terminated. Now instead of moving life forces there are mechanics, instead of axiology there are empirics, instead of heroic personality and universal Self, merging with the cosmos, there is a specialist.

There is a suggestion about the direct transaction of the magic to the science. It was substantiated by the ethnologis G. Fraser and the author of multi-volume selection of books about the history of experimental science L. Thorndike. In opinion of Fraser, the magic is there where you can find it in the pure state, it suggests, that one natural event follows with inevitability after another. Essential idea of the magic is identical in this way to the conception of the modern science: in the basis of the magic , as well as the science, there is a firm conviction into the order and the uniformity of natural events. In the magic, as well as in experimental science, the researcher is active and effective, but at the same time he gives place to external, objective reality. "The magic and science seem to put the man on the top of the big mountain, where behind deep clouds and fog the illusion of the sky city appears, which is far away but which is shining with unearth beauty and sinking into sea dream." (Fraser, 1986, p. 54)It looks like illuminating of the religion, however in magic and science the man doesn't bind his knees before the Superior, and his actions contribute to the display of superior objectivity and gives him the scene.

The defect of the magic is the misunderstanding of nature of special laws, governing the general objective regularity. The correct use of irreproachable principles of the objective cognition makes the science and the incorrect one "illegitimate sister of science – the magic." (Freser, 1986, p. 54)

Freiser points out the general analogy of the magic and science. He smoothes over and eliminates the considerable difference between them: the actions of the magic are built into the mythological picture of powerful forces, scientific methods into depersonalized world picture. To reduce the experimental and measurable actions to the science is possible only on the basis of objective outlook. The historical aim of philosophy is the neutralization of mypho-magic influence on the knowledge.

I suggest to put the philosophical phase of the paradigm before scientific, though I understand that other ideas can exist, based upon the popular dates from the reader of science history of Modern Time.

Its earliest and undiscussable border -1543, the appearance of the book "Referring to rotation of celestial spheres" by N. Copernicus. The next steps were made by Kepler and Galileo half a century later. The first writing of the modern phylosophy were published a bit later, in 1620 they publish "Great reconstruction of sciences" by F. Bacon, in 1637 – "the ideas about the method" by Decart. Besides the philosophical writings are in dependence with the development of natural sciences. They generalize their results. Bacon draws a plan of the new science and substantiates the experiment, De-

cart is able to rely on his own natural discoveries. But behind the chain of well-known dates there is a winding trajectory of cognition.

Copernicus's heliocentric system up to 1616 (when it was blamed by Rome curia) had a legal going as technical assumption in correction of Ptolemy astronomical tables. What is initial in Copernicus's work: mathematical calculations of orbits or the picture of the infinite Universe, where the Earth is only a grain of sand. Ossiander, the cardinal Bellarmin , experts of Rome inquisition up to 1616 preferred to believe in the first, progressive people believed in the second. Giordano Bruno without mathematical calculations and empirical evidence drew from Copernicus's definitions a wonderful picture of perpetual worlds. This early sketch of world outlook of New Time radiates with magic airtightness. The science thoroughly works upon bases of celestial mechanics, instrumental stratum of data.

Galileo's telescope discovered moon's mountains, Jupiter's satellite and the deposit of stars. New visuality operates in two ways: as a storehouse of astronomic facts and as a picture of the infinity not made with human hands. The sight of starry sky becomes the general foundation for mathematical calculations in natural sciences and for philosophical world outlook of New time. The research object of science and conceptual philosophical world outlook do not correspond. However to speak about their demarcation until the end of XVII century is hardly possible. Galileo, a mathematician, engineer, skilled master of mechanical devices, evoking admiration among the high and mighties, in the «Dialogue about the most important systems of the World» must bring his discoveries to conviction contradistinctions, because it requires joining the created elements into a scientific system. Here Galileo emerges as a philosopher, he does it because he is not a keen philosopher, but owing to the science he creates.

Kepler and Galileo are transitional figures. Developing mathematical apparatus of research, revolutionizing the instrument of observation, discovering separate physical laws, they are far from completed scientific method. This is only scientific method that can create the subject of science. While fighting for Copernicus's world picture and a new visuality, they inevitability look forward general theoretical world outlook. They are not simply astronomers, but they are philosophers. For the first time E. Kassirer pointed out to this fact, by putting Kepler, Galileo and other great naturalists in the history of philosophy. Kepler and Galileo preferred to rely upon pythagorisme and platonism. «Mathematical natural science again turned to antique ideal of cognition. Kepler and Galileo were able to join to Pythagorean, Democritean, Plato's ways of thinking. It seemed that the last barriers

have fallen before mathematical knowledge, between "sensationally comprehended" and "intellectually conceived" worlds. It turned out that the matter is stroked by the figure harmony and is managed by legal geometry. All the contradictions disappear before this general order, established in scholastic Aristotel's physics. There are no more conflicts between "low" and "high" worlds. The world is sole, because it exists and there is probably only world's cognition, only world mathematics in it." (Kassirer, 1998, p. 12-13).

Kassirer regrets that Decart has destroyed this mathematical and esthetic monism of cognition and created dual epistemology of subject-object. However it is hardly possible that natural sciences achieved such development, founding upon pythagorisme and platonism. Under Kepler and Galileo the natural sciences are not the same as under Renaissance, there are still some magic oscillations. In axiological mathematics there is God's voice and the substance of world harmony. The person who uses calculations, is able to argue with The Maker's power. But it is clear that mathematics are not a universal instrument of line production of data. In conditions of ideological battle of XVI- XVII centuries Platonism is one of the oldest philosophies, that is used as a counterbalance of Aristotelism. F. Bekon has already called Plato and Aristotel great genius, who wrote quite unusable books. Plato – Pythagoras's philosophy, even backed up by mathematical calculations was not able to defeat Aristotel's physics. It was in the power of Newton's physics, supported by Cartesian philosophy. To escape from magic world functioning where natural sciences are mixed with magic ways of taming powerful creatures of cosmos, the science should be based upon philosophical world outlook. (picture instead of actions). The main symptom is the creation of subject-object scheme. Decart proposes subject, liberated from alarming mediation with the God, together with the object that is an extended inanimate matter without demonic addition. This is the beginning of New European philosophy and philosophical period of New European paradigm. These two definitions do not correspond. Philosophy doesn't only give basis to the science, but to the religion and literature. In every day sense, philosophy is a systematization and regulation of world outlook with the help of logic. Philosophical phase of the paradigm means such a stage in existence studies where subject-object scheme of being is approved. In this situation the movement of philosophical ideas has an engine in the form of subject and object who change from active (agent-object) relation into cognitive one. Strictly speaking, philosophy has no other aims. Philosophy detaches itself from other related, but insimilar practice: mythological and magic occupations. Starting with myths, breaking author-subject-listener order of the story, it establishes the immediate contact of auditorium and the story teller. Moving away from magic, the theoretical observation becomes an activity. The thinker of Renaissance is too enthusiastic being to limit himself by neutral cognitive tasks, even if he is not a titan of Renaissance, like Michelangelo, Leonardo da Vinchi, and isn't a hero, like Bruno and Kampanella. The world for him is the chaos you obey to it or subjugate it. Now between the man and the world, his thoughts create more calm relationship, based upon objective cognition. Built system of thoughts belongs to the philosopher as a subject, in one way or another subjugated with the world.

Scientific phase. It is difficult to reach this phase without systematic education, the man has to face a lot of problems. The eastern science is mixed with the magic and philosophy. We can speak about the scientific phase of the paradigms existed previously, because in Antiquity and late Middle Ages there was teaching of logic thinking in schools and high school establishments, there were professional research societies, there were premises of deaxiolisation and specialization in one subject of study.

Scientific phase of new European paradigm we can name after the founder of classical mechanics-Newton's phase. If we mean that the paradigm is a reconstruction of a certain line of cognition from maturity to its roots, then we can call all new European paradigm- Newton's one.

In special aspect I suggest to consider as Newtonians the methodology that arises from Newton's statement "hypotheses non fingo" (I donot frame hypotheses). It means removing of the subject from scientific research in favor of the object , law of nature. This is the feature of New European science in its zenith. The same directions of New European thoughts that are infected by excess hypotheses, have the reputation of half-science-half-philosophy.

Newton suggested the Universe of mechanic bodies, connected by the forces of gravitation. They can be calculated without any personalization. The God gave to the world the first push and after that it is put out of brackets of the demonstrative science. There is the observer who watches the bodies go by. The man of scientific phase of New European paradigm is a researcher. He is more partial and special being than his ancestors. He is not the character like "concept heros" of Galileo's dialogues and is not a subject, because he is involved into discussion of epistemology self-assertion, like Decart.

This is how witty and observant Walter explained the difference between Decart and Newton: "the first one was a dreamer, the second one was a sage."(Walter, 1989, p.133) He says about Decart: « Geometry was a guiding star, that he created to a certain extent, and it showed him way through the physics, but eventually he left this star and gave oneself to the spirit of system formation. Since this very moment his philosophy has only become a fascinating novel, but unfortunately only plausible for ignoramuses. (Walter, 1989, p.133) Decart starts to make mistakes in everything: in soul nature, in testimonies of God's existence, in laws of the matter and movement, light nature, in mechanisms of rise and fall of the tide and other things. He draws the Universe covered with whirlwinds, the Earth in the form of melon, the light is everywhere in the air like the liquid, all these beliefs are erroneous. Has it happened due to the fact that Decart gave up accurate sciences and became absorbed into conclusions? The French thinker always combined science and deductions, they were two sides of the unique creative activity. It is sure that Decart's system is more picturesque and clearer than Newton's. Cartesian construction is the world outlook in the literal sense of the word, because Decart gives something for eyesight- the picture of the world. Solar space is filled with fire vortices, planets are washed by jets of the ether, beams of light consisting of sphere-shaped small bodies rush from the Sun. There is nothing picturesque in Newton's theory. Newton's Universe is empty, here there is only one invisible, uncontrolled law of gravitation. You can not see the working powers, but the hierarchy, that scholastic widely used, of causes and consequences is not evident either. There is nothing to say about gravitation, except physical parameters.Newton refuses to discuss the question about the nature of the discovered phenomenon: I do not frame hypotheses. «Newton perfectly foresaw, that after he

proved the existence of this principle, they will be against this term, he warned his reader about the pull, saying that he shouldn't mix the gravity and occulted qualities of the ancients and tried to get satisfied with the fact that all the bodies are subject of a centripetal force that affects from one side of the Universe to another one, it affects the close bodies and remote ones, according to unshakable laws of mechanics. (Op. Cit., p.141). The explanations that Newton confined himself, are applied to the possible instruments and mathematical calculations. He explains: «I use the term "pull of gravity" only to identify the discovered true and incontestable action existing in the nature, of unknown phenomenon, quality peculiar to the matter. The cause of it should discover people more skilful" (ibidem). In this imaginary dialogue, written by Walter, the contrary party expresses intellect disappointment, used to illustrative, dramatized picturesque presentation of nature laws, to quick, blanket and invented explanations. "What have you taught us?-continue to insist his opponents,-and what for to make so many calculations, if you tell us the things you do not completely understand yourself?" (ibidem).

Newton (we mean Walter on his behalf) gives quantitative data about body movement under a centripetal acceleration. The last and the main argument of the physician consists in the fact that there are no deviations from formula deduced now and there won't be any in the future. This is the last proof where the human intellect should stop. Different pictures as Decart's vortices in experimental-mathematical severity look like fabrications. «These are just vortices that we can consider occulted qualities, nobody proved their existence. The pull of gravity in the contrary, is something real, because its affect is proved and corresponding ratio is calculated. The reason of this principal lies in God's bosom.» (Op. Cit., p.143). The science will have acquired the primary standard for nearly two hundred years. The approach of other spheres of knowledge seems evident to Walter, but it is not ,of course, deprived of problems. Newton tried to apply mathematical and mechanical standards to history.

In London "The corrected chronology of ancient kingdoms" is published after his death. The author recounts the main dates of ancient history adjusted for pole movement from the East to the West, and the Antiquity becomes younger for five hundred years. Walter is careful about Newton-historian: « I do not know, if this witted system will have a success or world's chronology will be based upon it perhaps scholars will find it excessive to give the honor to the same person for improving at the same time physics, geometry and history» (Op. Cit., p. 153).

Now we know that reconsideration of historical sequence in reference with objective astronomical and physical scales was not accepted by science. The attempts to continue Newton's line in history lead to marginal cases in historiography, like "new chronology" created by A.T. Fomenko. The reason was given correctly by Walter. Kant is much better defined the interrelations of objective science with history. Accepting the undiscussable impact of Newton's mechanics upon the science of New Time and making the architectonic of pure reason according to Newton's paradigm, German philosopher determined another destiny to history. He puts it out of control of pure

reason, the scientific thinking, places it in the sphere of practical reason, the moral. The logic of moral sciences as severe as experimental ones. It requires to achieve social generality of judgment. «There is only one imperative, viz.: you should behave yourself according to the maxim that you consider be worth transforming into a general law.» (Kant, 1964, p.260).

So the authenticity, in moral sphere, requires judgments and conclusions that will be true for the whole human society. Mathematical reliability does not foresee such socialization, because it has an apodictic character. Mathematics according to Kant, is reconstruction of notions from illustrative representations, made a scientist. The current of thoughts of German philosopher unexpectedly corresponds with ideas of social constructionism, if we eliminate, of course, the possibility of social construction and special definitions of nature science. Humanities require social verification because the bearers of the authenticity are the society and each person, not only science. Of course, mathematical formulas need public recognition, however the examiners are few professionals who protected by expert snobbism from "crowd" opinion. That's why in nature science the proud aphorism about the truth which will remain the truth even if it is rejected by all the humanity only underlines the eclectics of knowledge, in humanities it means the fighting for social recognition.

Let's not be undeceived by the role of Kant in historiography justification. Kantianism is developing as cognitive theory in nature science paradigm of New Time. The application of philosophy to scientific phase of the paradigm at the end of the XVIII – the beginning of the XIX century is due to the approach of mechanic and mathematical knowledge to the column of "rear guard" sciences. Kant brings up to the level of experimental science systematizing disciplines: zoology, botanics, mineralogy, psychology, anthropology. But he doesn't have the same results with historiography. The modern knowledge about the past has its own source.

And its own philosophical godfather –Hegel. However the analysis of pure reason in the history could not avoid other coordinates and phases-narradigm ones. Hegelism is a kind of philosophical narrative.The subject of this article is different, and I do not want to mix even by a hint the things which are desperately combined.

The phase of astroregulation. This word was borrowed from Russian thinker N.F. Fedorov. (see Fedorov, 1982). In «Philosophy of common cause» he depicts how people will be united in the future by space project of their fathers' restoration to life. The people will refuse their egoism and all their inclinations ,even their human nature (the stated theme was developed by Fedorov's adherent K. E. Tsiolkovsky). Correspondingly the cognition will loose its human measures and will assimilate with the examinable reality. In Newton's paradigm such transformation will mean complete headship of objectivity, replacement of reflected reality by the reality itself without disturbing impact of the human eye, imagination, wit , it means the appearance of Another. What is the objectivity of perfect resembling reality devices? Is it human reality itself?

However Fedorov's astroregulation is an utopia, science fiction. Russian cosmism is a mixture of technical projects and dreams about the future. It is evedent that deep

penetrations into the cosmos are still far away (if they take place).The symbiosis of our intellect with electronic devices looks real, especially in some researches. By analogy of Fedorov's term we can call this anticipated knowledge stage the phase of informregulation. The theorist of information society suggest that the expansion of microelectronics will place in doubt the usual differentiation of labor between the researcher and the device. We must remember that the scientist of the XIX th and especially XX century is not the thinker and the subject of cognition in philosophical understanding, but the researcher. He can be a specialist in theory, experiment, technical support, organization and other parts of scientific work. Such a specialist is not able to generalize from the information gathered by one science, not speaking about creation of the whole picture of the world. He confides the construction of the object of the cognition to equipment , whose possibilities increase immensely. «Intelligent device» has already replaced the scientist from the range of research professions. What's more not only secondary ones, but auxiliary professions too. The burst of information volume leads to the fact that the machines are charged with the analysis of empirical data and experimental planning. In big research complexes of the most progressive sciences, the person is plunged into unbroken succession of data, but he has no possibility to manage them with the help of cause-and-effect relations and to hypothesize. He must be submitted to the logic of devices that coordinate the complicated net of research. From the point of view of classical science, the separation of theory and practice in such situations is fading away, and in essence, there is no subject of research, but there is a continuous generation of immense quantity of data, that multiplies in an avalanche using autonomic devices.

Subjective and even simply intelligent research participation in construction of object is question to doubt. The subject, the researcher becomes the continuous moment of quasireality. In such cognition "human being … looses its privileged status" (Lash, 2002, p. 135). Post –human society with post-human science, that strictly speaking, is not a science anymore, because the research activity is a human occupation that completely foretells the subman cast of another reality.

The suggested to reader's attention theory is possible (but problematic) issue of scientific knowledge in a rather long-term prospect. Newton's paradigm shows us the development of new European science, but it is a far way to "post human science". Einstein's paradigm becomes the limit of progress of Newton's objectivization. «The objectivity» suddenly returns to selfhood, to the position of private (relative) observer. The author can't say anything else about Einstein's or post Einshtein's paradigm. However the author has some ideas about the term "paradigm". How is it universal in the light of "digm" family development? Koon's concept represents in epistemology scientific experience of natural science, however in the literature of last decades it is used as a definition of any legitimate example activity. However mode, tourism, war and sex paradigms can not be considered as interdisciplinary matrix of research. The author of this article has already drawn sketches of socio-cultural legitimation of different, than conceptual and apparatus knowledge, material. I have taken the anthropological and

cultural widening of narration (narradigm), of visualization (videodigm), audio imagery (audodigm). It seems that the routes of acculturation of anthropological potential of Homo Sapiens' lie everywhere and "digm" family can be extremely enlarged. However is it worth to call the opening diversity by a general term of "paradigm"? If yes, than shall we give to this indicated term such a degree of generalization that reduces while deducing it from the history of one line of New European nature sciences of New Time?

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Psychology of health

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Psychodiagnostics of the destructive influence upon the ecological habitat factors

Social-natural habitat in the form of ecological vital functions can influence upon the homeostas of inner mans habitat that disturb standart parameters psychological and psychical health of teenagers living in the negative ecological habitat. The results of many years experimental-psychology research of teenagers borning and living in the negative ecology-chemical habitat with using manyvectotial patopsychological and pathopsychology-mathemetical discriminant analysis on the conclusive level, found out firm neurotoxic and neuroendocrinetoxic nfluence of the complicated chemical inorganic compositions. Toxic influences break development of individuality, in other words the ability to be full subject from the position of the conception constitutionally-continued area of the personality in the system of complicated multilevel organization which is determined by interaction and independency of inner psycholotypological and outward factors.

Key words: psychical health of teenagers, anamalous personal and behavioural changeableness, destructive ecology factors of habitat.

To the antropogenetic factors of habitat which are created by the results of mans activity also ake to waste products of chemical plants, chemical pollutions, throwing out to the air , water and ground. Polluters of the enviromental habitat influence on the mans organism but the most dangerous are the substances, compounds, compozitions which by the penetrating to the mans organizm call changes in the brain cells and then in the behaviour. It is known that mans health even of the whole groups of population depend on the influences of different natural and social subsystems, realizing through the physiobiological, psychologyphysiologocal and biochemical regulating mechanisms, reverberating on the physiobiological, phycological and psychical mans condition.

Rough grouth jf the industrial manufacture typical for our epoch caused sizeable changings in the structure and geographical differents outward chemical habitat. In big cities more and more waste products are thrown out. Many from this waste products can cause changins in endogenous, neurobiochemical processes, that cause behaviour violations. So, in the atmosphere of Stavrapol Territory in 1990 only by one chemical manufacture « Azot» Nevinnomisk city was thrown tonns of harmful substances (N.M. Nickolaev, 1990). And to one of Nevinnomisk inhabitans in one year accounts more than 660 kg of harmful substances (oxid of nitrogen, carbon sulphury

anhydride and so on); accordingly in Budennovsk – nearby 80 kg, in Stavropol – nearby 50 kg. As for Rosgidrometr indexes, nearby 1|3 population of Russia feel harmful influences from different pollutants. Their level exceeds in 10 times and are more our admissible sanitary-hygience norms. Therein lies a problem in no-signal safe polluting enviromental habitat.

Making science researches we can not ignore the fact that in present time nearby 10000000 chemical compounds are known and about 70000 from them are put to the internat register as a potentional toxic and more than 1000 as hightoxic substances.

Moderate dangerous compounds in long outward hardly noticeable influence in small doses cause functional vidations in the organism whicy acquire irrevercible character.

Agressive ecology-chemical factors in the form of cleaners, beauty treatments, food preservatives, dyies stabilizers, their toxic properties address at first turn to the more highsensible biological substatums – to the brain neurons, to the centre of neuroendocrine and neuroimmune systems, that can potentionally change the functions of phychical activity and at the first turn – the behaviour.

Complex estimate of the child health state which was made by the deep medical exemination of school boys at the age of 7-11 years showed that the whole number of healthy children in the high polluted area arranged 6,6 % and in the control area – 19,9% (J.V. Novikov, 1999). Influencing on he womens organizm and child-bearing, ecology-chemical factors cause the changings of nonspecific organism resistance, promote violation pre-natal development (E.E. Sarkisyan, M.A. Bashkirova, 1987). M.J. Studenikin showed that many xenobiotics are the reason of complex reactions and affection of CNS, lowing IQ, min. brain dysfunction, behaviour anomalies, neurotic reactions, lowing school results, but this dependce has not been confirmed eyt by deep analyse and the fact of the changings in CNS of children who live in zones of ecological crises are understate. In 12 more industrial advanced regions of Russia which can be taken to the zones of ecological crisis, the level of infantile death is more on 25% than in safe areas. It is important to pay attention that the rak understanding this index in zones of ecological tension is rather remain behind from its action in relatively «clean» areas («The health of population and chemical pollution of enviromental habitat», - M., 1994). In zones of ecological tension and crisis where is hightended level of atmosphere pollution with sulphurelted hydrogen, hydrocarbon, ammonia, we can see childrens lag in physic, neuro-psychical evolution. It is noted there high prevalence of cronical deseases, which exceeds in 3-4 times of children deases in «clean» areas. (F.F. Dautov, 1990).

Initial position of this work is the fact that psychological aspects of disadaptation are the primary link which becomes apparent in functional changes of psychical activity and psychological expereinces in the norm context. Forward succession of factors which extends disadaptive traits becomes apparent in forming irreversible or little revercible changings in different psychobiological mans systems, also in his physical and psychological activity which is the degree indicator of neurointoxication upper section of CNS.

It is really true that becomes a question about what definition is more fit to psychological health and why we distinguish it from psychical. We think and most part of experts in the area of psychology think so too that psychology of health is the pert of general culture of man. Health is the reflection of healthy existence, personal and social well-being. The problem of the correlation of soul and body in the medcine history always attracts doctors.

World-wide organization of public health determines health that not only as the absence of the desease, but also like full physic, social and soul well-being which are necessary for normal personal forming. It is known from S.L. Rubinstein, L.S. Vigotsky works that only personality has psychological qualities which rule self-consciousness. Personal character is acquired by psychological functions only on the basis of self-consiousness of personality. For example to think for the child is to remember, for teenager to remember is to think. Psychologically functions enter to the new bond with each other through the personality. The same attitude is to the functions of attention, perception and activity.

If the psychological functions become apparent fully through the personality, so the characteristic of the psychological health is better to present as the vector «norm-pathology» in the form of constitutional-continued personality space: psychology norm is the accentation, frontier anomalous personality, psychopathy.

B.S. Bratus offered multileveled model of psychical health and picked out several levels of personality structure. Every level has its own understanding of psychical health. By this model the best level of personal health is in answer to production semantic orientations, determination of general sense of living, the attitude to yourself and other people does the regulating influence on the lower levels which characterize the degree of adaptation and condition.

Modern theoretic, experimental and applied approaches in the psychology of personality and psychology correction charactirize psychology health as the ripeness, safety and activity of mechanisms of personal self-regulational, the measure of the mans apportunity (to exceed through the bounds) of biological, social and mental determination, like an active and autonomic subject of life in changing world.

Telling about what vector «norm-pathology» is we can not mention to the continuum norm-PAL, because in the real life among population there are flexible passages from one condition to another. At the same time vector «health-desease» is not acontinuum because in that case we can see the passage from one condition to another like steps.

The aim of the research – is the psychological differentiation of teenagers who live in the habitat with predominating of hard chemical nonorganic compositions and teenagers who live in resort regions.

The methods of experimentally-psychology research: 1. Diagnostic inquirer of personal pathology A.E. Lichko (1978); 2. Determination method of the neurotization and psychopathy (E.V. Bajin, 1976; I.B. Lasko, 1980); 3. The scale of Teilor (1953); 4. Methods of Aizenk (1963); 5. Clinic inquirer for exposure and appreciation of neurotic condition (K.K. Jahin, D.M. Mendelevich, 1978); 6. Multivector uniform psychology analysis (I. V. Boev, O.A. Ahverdova, 1998).

Mathematical methods of resaerches are shown by nonmodulation statistic in the way of discriminant and factor analysis with using the criterion of x-square, based upon zero hypothesis that there are no any distiction between these groups (K. Braunly, 1978).

The material of investigation involvtd the empirical analys of personal experiences and behaviour stereotypes of 236 teenagers, 204 of them took part in the experimental-psychology checkup. The results of 32 of them were excluded from the patogenetic analys. Taken to account their frontier psychicial deseases which were not tied together with ecology-chemical influences, but determined by endogenous and psychogenetic factors, that raised the realness of the reseived results. By the first stage the experimental-psychologe diagnostic was made. This diagnostic was touched upon 2 subpopulations of teenagers from different regions of living. By the second stage the differential psychology diagnostics of teenagers from different habitat depending from belongings of probationere to the strucrure of personal psychology type was made.

The first group of probationers (basic) was farmed from 120 teenagers. In their ecology habitat SHNK was predominated. The division of the group was made depending on the belongings them to the structure of personal psychology type : subgroup 1.1 – epileptics – 30 of probationers; 1.2 – schizoids -30; 1.3 – cycloids -30; subgroup 1.4 – hysteroids – 30. The second group (comparative) was formed by teenagers from resort region of the city Kislovodsk -84 of probationers. The division in these subgroups: the sub-group 1.1 – epiliptics – 22; 1,2 – schizoids – 18; 1.3 – cycloids – 28; the sub-group 1.4 – hysteroids – 16 of probationers.

The analys of own experimentaly-psychology researchers indexes of teenagers who live in ecology-chemical habitat with determination of complicated chemical nonorganic compounds and resort habitat.

In the table 1 middle indexes are presentd, their standart deviation which show to the authenticity of differences, which were received in the proctss of comparative multivector patopsychology analys of 2 subpopulations of teenagers.

The table 1

Comparative patopsychology facts of the middle indexes, their standart deviation if two compared groups of teenagers who live in favourable resort zone and in ecology-chemical habitat with predomination of CCNC

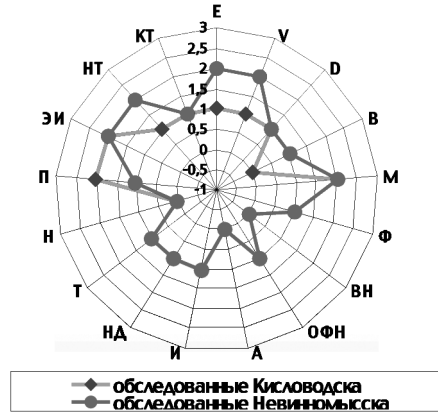
		Group-1		Group-2	
	The name of variable	Middle	Standart deviation	middle	Standart deviation
1.	The index of the emancipation - E	3.10588	1.57377	3.56115	1.83806
2.	The index of the inclination to drinking alcachol - V	1.41176	4.67336	1.73381	4.45846
3.	The index of delinquention -D	2.72941	2.18430	2.97122	2.21962
4.	The index of minimal brain insufficiency-B	3.31765	1.39908	3.47482	1.41591
5.	The index of masculinization - M	5.38824	2.74336	4.88489	2.80031

	The name of variable	Middle	Standart deviation	middle	Standart deviation
6.	The index feminization - Ф	3.32941	2.03767	4.88489	2.07934
7.	The scale of vegetative abnormalities	3.00000	6.33208	1.84892	5.95139
8.	The scale of obsessive and fobic abnormalities	-1.03529	3.92321	2.28777	3.61903
9.	The scale of asthenia	2,88235	3.69817	2.28777	3.96405
10.	The scale of hysteria	0.85882	3.94653	0.92806	3.74086
11.	The scale of neurotic depression	1.31765	4.03913	0.48201	3.87177
12.	The sacle of alarm	0.94118	3.51647	0.33813	3.42530
13.	The index of neurotization-Н	32.07059	31.61366	27.87050	31.60073
14.	The index of psychopathy - П	-6.97647	12.97982	-4.26619	13.58632
15.	Extraversion -Intraversion EI	14.85882	7.76462	14.12230	2.97200
16.	Neurotic anxiety-НТ	12.16471	4.35848	13.77698	4.15295
17.	The scale of Teilor -Т	18.16471	8.36211	18.64748	8.31958

Multivector patopsychology analys (look for diagram №1) made possible to show combination of the patopsychology markers with specific weight of deposit to discrimination of everyone from them who take part in differential diagnostic of comparative groups : the index of emancipation -11,4%; the index of vegotive instability -12,3%; the index of the obsessive-fobic violations -6,4%; the index of the neurotic depression – 8,5%; the index of psychopathy -7,2%; the index of neurotic anxiety -43%.

Comparative multivector patopsychology analys of indexes of the researcher of teenagers who live in ecology-chemical habitat with predominance of CCNC and in resort habitat (Kislovodsk)

The diagram №1



- robationers from Kislovodsk
- probationers from Nevinnomisk

We can say that for the teenagers who live more than 10 years in ecology-chemical habitat with the predomination of CCNC it is peculiar the constitutional anxiety (outward without motivation, amorphous), with elements of psychopathy (the scales Т,П) in the way of conflict, of cant living together, with the inclination of small accusation to surround world, with constsnt discontent of their life and the behaviour of thei near people. We can see the reacnions of the emancipation (the scale Е) – disagreement with the oppinion of relatives, coevals, with the wish to do contrary to the decicions of parents, with the aspiration for false independence, with consbant psychology resisnance to adults. These reflect the constitutionaly-psychology negative drift under the influence of CCNC from the diapozone of psychology norm – accentuation to the side of frontier anomalous personality (FAP). Redoubling of manifistation of psychopathy and emancipation is observed by the fone of high indexes of masculization (the scale М) which is a favourable base for stabilization of anomalous psychology changeableness.

Discovered negative psychology type drift (look for diagram 1) is accompanied by transformation of psychology personal experiences to the patopsychology with increasing of neurotic depression – the scale НД (pessimism, pauperization of motivation, the feeling of despair), obsessive-fobic manifestations – the scale ОФН (hightened anxiety, the feel of scare, uncertainty, doubts). Vegetative instability (the scale ВН) especially can be observed when during long contact with CCNC. We can mentioned the rippling of arterial pressure (АР), pulse, hyperemia, hyperhidrosis, cooling of extremity, allergic sensations. Against the background of negative psychology type drift, psychology inclination to alcocholization(the scale V) is increasing and stabilizing. It reflects the forming of personal decompensation.

Patopsychology-mathematical analys helped to build lined discriminant function which make the role of differential diagnostic patopsychology scale: Y= - 0.1661X1-0.0301X2-0.02709X3-0.12851X4+0.01256X5-0.03623X6+0.07122X7-0.09799X8+0.01783X9-0.15580X10+0.06756X11+0.02020X12-0.00318X13-0-.01762X14+0.03023X15-0.17669X16+0.04170X17,where X – defenite meaning of the constant index

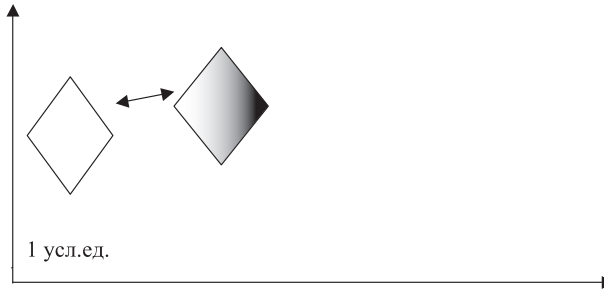
If in the process of index substitution which were obtained from the results of experimentaly-psychological researches, the summary meaning Y – is more than discriminative index R, the results of constant probationers teenagers will be so, because its constitutionaly-psychology pecularities were not exposed by the negative influence of habitat ,in particular CCNC and very likely that the probationer is living in the resort ecology clean zone. If the summary meaning of Y is more than discrimination of index R, so constitutionaly-psychology basises are exposed by distracnive influence from the side CCNC, predominating in concret ecology-chemical habitat.

Making patopsychology express-diagnostic, the psychologist can pick out considerations from subpopulation of those teenagers who have constitutionaly-psychology pecularities and their psychological and psychical condition was exposed by anomalous changeableness, that is determined by long influence and interaction of inner constitutional factors with outward – CCNC.

On the first barchart we can see visual results of differentiation of teenagers from compared subpopulations. You can mention rather low meaning of the square of Mahalanobis which is equal 1 c.u. It helps us to understand that the most part of probability is mistaken diagnostic but it does not exseed the first group -37%, the second – 33%.

These results can help us to know not only the differences, but the definite similarity between the teenagers of compared subpopulations, giving us the foundation to consider about having toxic factors also in resort habitat.

The visuality of results of patopsychological variables, collaborating in differential diagnostic of teenagers to three-demensional space who live in favourable resort habitat with predomination of CCNC.



- teenagers of favourable resort zone
- teenagers from the habitat with the predomination of CCNC

BARCHART 1

The compared many-demensional patopsychology and mathematical analys by the example of teenagers with hysteroidic structure of psychology type, who contact for a long time with CCNC and those teenagers who live in resort region, it confirmed rather essential and authentic differences of two psychology types. And this is the value of the methodological antropocentric approach. In the table 2 we can see the middle meanings of patopsychology indexes which reflects authenticity of differences receiving during the process of multivector and comparative analys.

The comparative multivector patopsychology analys (the diagram 2) helped us to understand the opportunity to know the combination of the markers with their specific gravity, their contribution. They take part in discrimination of two compared subpopulations of teenagers : the index of emancipation – 13,3%;delinquention – 20.4%; minimal brain disfunction – 9,3%; feminization 27%; astenization – 11%; neurotoc depression – 30%; anxioty – 15,3; psychopathy – 10,3%, neurotic alarm – 11,1 and the scale of Tailor – 8,6.

The table 2

The compared facts from the middle indexes and standart deviation of 2 groups of teenagers with hysteroid structure of psychology type, who live in favourable resort habitat and in ecology-chemical habitat with the predomination of CCNC

		Group-1		Group-2	
	The name of variable	Middle	Standart deviation	middle	Standart deviation
1.	The index of the emancipation - E	3.10588	1.57377	3.56115	1.83806
2.	The index of the inclination to drinking alcachol - V	1.41176	4.67336	1.73381	4.45846
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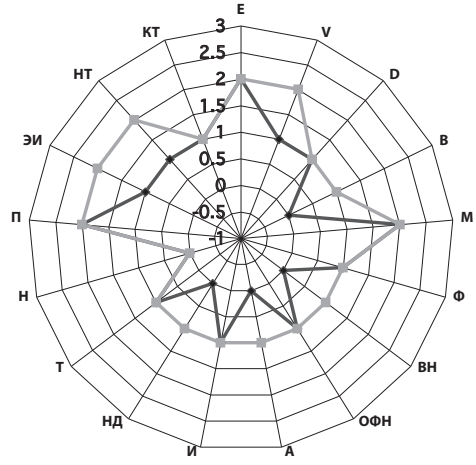
13.	The index of neurotization-H	32.07059	31.61366	27.87050	31.60073
14.	The index of psychopathy - П	-6.97647	12.97982	-4.26619	13.58632
15.	Extraversion -Intraversion EI	14.85882	7.76462	14.12230	2.97200
16.	Neurotic anxiety-HT	12.16471	4.35848	13.77698	4.15295
17.	The scale of Teilor -T	18.16471	8.36211	18.64748	8.31958

Fixed combination of the patopsychological indexes which are typical for the hysteroid structure of the teenager, reflects really low tolerance of the representatives of hysteroid psychology type to the chemical structure of CCNC. At first we have to mention the encreasing of the index of minimal brain disfunction, this combines with the signs of feminiztion. In the whole it reflects and neurotoxic and neuroendocrinetoxic destructive influence of CCNC to the constitutionaly psychology mechanisms of the development of the teenagers with hysteroid psychology type. And this confirms earlier known tendention of the teenagers population.

Signs confirmation of the anomalous of personal and behaivour change are the indexes of the delinquention, emancipation and psythopathy with neurotic alarm. This point to confirm negative constitutionaly psychology type drift of teenagers with hysteroidic psychology type from the diapazone of psychology norm to the side of the dipazone of boandaring personal anomalous.

In this drift period we can see the encreasing of individual instability of the psychical and psychological adaptation and the actualization of constitutional personal mechanizms of the decompencation happen. An outward of decompencation is the transformation of psychology experiences to the patopsychological, at first it is asthenetic manifestation, neuritic depression, repeating anxioty. Combin-

ing of of the neurotic and repeating anxioty is the prognistic unfavourable sign for the hysteroid personal structure. If the manifestation of organic brain damage increases with the help of the chemical factors of ecological habitat, we can suppose that for teenagers with hysteroid psychology type to live in ecologicaly-chemical habitat with the predomination of CCNC is not the normal condition to safe their psychical and psychology health. More than, the risk of neurotic and psychosomatic deases increases.



The diagram 2

The compared multivector patopsychology analys of the indexes of researches of the teenagers with hysteroid structure of psychology type who live in ecology-chemical habitat with the predomination of CCNC and resort zone.

Many-dimensional patopsychology analys of indexes, having the specific gravity more than 5% but with negative sign characterize the teenagers of resort zone who have patology inclination to the alcocholization(-23%), to the masculinization (-9%), to the increasing of the neurotic index (-15%). So the teenagers with hysteroid structure of psychology type from resort region differ by another combining of the patopsychology markers of the discremination and it means the predomination of forming alcahol behaviour stereotype with neurotic experiences.

Thus, the teenagers with hysteroid psychologe type differ by the limited psychology biological reserve, that in case of the long unfavourable contact with ecology chemical factors, it leads to the frustration of mechanizms of the constitutionaly psychology adaptation and compensation.

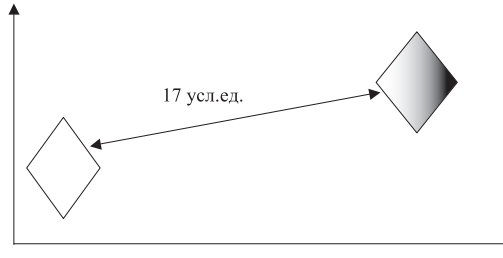
Patopsychology analys result in building line discriminant function, it makes the role of the differentialy-diagnostic patopsychology scale

Y= -3.45554X1 + 2.97447X2 - 4.10158X3 - 4.76383X4 - 1.92340X5 + 3.80144X6 - 0.01045X7 + 1.14174X8 + 1.22010X9 – 1.54403X10 + 2.25397X11 + 1.11630X12 - 0.22862X13 + 0.61808X14 - 0.50589X15 - 0.85968X16 + 0.85739X17,

where X is the definite meaning of the constant index.

If in the process of substitution of meanings, summary meaning Y – is more than discriminant index R, the result of the concret teenager will be evidence about the fact that his constitutionaly psychology of personal type hysteroid capability were not touched upon the influence of CCNC and may be he lives in the favourable ecologicaly clean zone. If the summary meaming of Y is more than discriminant index R, so the constitutionaly psychology type of the hysteroid bases of the personality are exposed tj the real destractive influence from CCNC predominating in this very zone of habitat.

Being made, this very scale can be used for the express-diagnostic of the teebagers with hysteroid psychology type naturally in man-caused and antropogenic catastrophes, when we have to determine the degree of the destractive effect of the chemical negative factors. This scale can be used by the experts of different profiles – psychologists, clinic psychologists, psychophysiologists, sociologists, social workers, doctors.



The barchart 2

Vizualization of the results of the patopsychology variables, taking part in the differential diagnostic jf the teenagers with hysteroid structure of the psychology type to the three-dimensial space, who live in the favourable resort sone and in the ecology-chemical habitat with the predomination of CCNC

In the barchart 2 we can see visual results division of teenagers from the compared sub-populanion. We see the high level of the differences of the probationers with the hysteroid psychology type and they live in different ecology regions. The

meaning of the Mahalanobis square equals 17 u.c., so in that case we can see high differences between middle indexes of compared groups. It may be 10% mistakes while making diagnostic of teenagers with hysteroid structure, who live in the resort region and who may connect with the toxic influence of drug components.

Therefore the representatives of the hysyeroid psychology type between the whole population of teenagers differ by the low tolerance to the unfavorouble ecology-chemical habitat with the predomination of CCNC, when also increases signes of the organic brain damage, neuroendocrine toxic influence in the way of increasing feminization and it promotes the exhaustion of the neuroendocrine constituent with the signs of the athenization and high level of anxioty. Confirm negative psycology type drift in the constitutionaly-continued space to the side of the diapazone of the boandary anomalous personality in the way of influencing of the negative ecology-chemical habitat factors. It leads to the anamolous personal and behaviour changes. Compared with general teenager populations, the probationers with the constitutionaly hysteroid structure, become more vulnerable in the way of disrtractive ecology-chemical factors of the habitat.

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The yong scholars

Belova L.I.

Dialogue in education as the technology of development of students' sense formation*

The technological laws of education process are considered to be the main principles of the contemporary theory of sense and sense formation that give the possibility to analyze the educational process as the sense reality and determine the specific features of education components: technologies, methods, forms and ways of its organization.

Retargeting of methodological approaches, the change of theoretical constructs, search of the new principles of construction of practice-oriented educational programs that would be adequate to new understanding of the man as a complex self-organizing system extricate applied branches of psychology, and in the first place its directions connected to development of education at an absolutely new level, giving an impulse to such spheres as psychopedagogics (A.G. Asmolov, L.M. Fridman), practical psychology of education (A.G. Asmolov), human education (V.E. Klochko), sense pedagigics (A.G. Asmolov, M.C. Nirova), sense didactics (I.V. Abakoumova).These new branches of science that are frontier between psychology and pedagogics, have chosen as their perspective and practical direction –pedagogics, and as essential basis-psychology. However only psychological explanations of these and those approaches aren't enough, the system of education itself should embody a real cognitive mechanism for a really cognoscitive child.

The objects (in the process of ontogenesis and cognition) surround a person before, they acquire any meaning for him and it is the main contradiction, "the development crisis" of child's consciousness. The role of the adult is to deduce the studied object (process, phenomenon, objective regularity) to the border of sense field, to the border of transitional form of objective and subjective worlds, revealing sense, created by the object of cognition to cognoscitive subject.Sense formation is the main process happening in the combined psychological system. Situational senses and senses of the levels of values (superior senses) is the new dimension of human being, the level of his general and personal development. In this situation an adult, a teacher is a mediator in the relationship between the culture and the child, between civilization achievements and the pupil.That must be implemented into new didactic systems, new educational technologies.

The particular block of problems is related to motive –dynamic components of education, to rethinking of already existing and elaboration of new methods and edu-

* The article is submitted by the research advisor - the head of General Psychology department ,Doctor of Psychological Science, Professor Abakoumova I.V.

cation technologies. The subject of an educational process is the content field that nourishes pupils' sense formation and sense awareness, must receive a "life impulse".

It must be placed in the space dividing it between the teacher and students, between students and groups. It must be located in time and differentiated, filling the sequence of procedures of the teacher's and pupil's actions. These are technological aspects of the educational process. The technologies of education are represented as a mechanism of content self-realization, and thus updating the content in any direction, including sense formation, it is also necessary to update technological culture in an adequate, synchronous way. The content and technologies turn out to be organically interconnected: if the content "nourishes" personality development, its sense structures, the technologies start, launch the development. If the technology is not adequate to content , it won't work, due to the principle of isomorphic content accordance , the principle of inter correspondence is violated . However if content component of education has been recently filled with meaning, oriented to development of sense sphere of pupils, the technologies still remain representative and cognitive.This contradiction generates the necessity to find such technologies in educational process that will introduce it to the level of sense sphere through sense formation and sense discovering by the pupils themselves. The technology of educational activity must be revised according to mechanisms of sense formation, characteristic to this process. The interpretation of so called "sense problems", which are regarded in personality psychology as a "try to find the true motives of the behaviour" is a subject of much current interest. Unconscious senses initiate multidirectional idea movement trying to find the way to conscious level interfering into thinking content. In the course of "sense problem" resolving there is an internal work of personality on corresponding motives in several intersecting planes: on motives that make personality overcome internal and external barriers to achieve the goal, on relation of this motive to the others that are displayed in the conscious, and could be the reasons of this activity,on assessing this motive and its relationship to adopted norms and ideals of the personality, on corresponding the motive with existing opportunities from the point of view of this personality, it means perceived Self image, comparing one's own motives with the other people's motives. (A.G. Asmolov, V.V. Stolin). During the educational process the need of putting the new senses to conscious level is the catalyst (the contradiction between the desire to express his feelings and passions and the limited verbal skills to do it) induces introspection and self-studying.

The dialogue is the most significant technology of pupils' sense formation. It was showed that interpersonal dialogue should be considered from internal and external sides.

The dialogue can be pair between the teacher and the pupil on the outside. It has much more complicated structure when the teacher works with the group of students: their answers and questions , initiated by the teacher and closed to the teacher, repel the similar actions of the other pupils, come into contact with them, influence the cogitativity, maintaining it and enriching, or on the contrary, rejecting it, trying to get away. Such a dialogue is fairly called multiple, not meaning the multiple pairs of "teacher-pupil", existing here, but complicated radial structure, starting from the

teacher and returning to him, permanently bending and changing its radial form. The dialogue between groups of pupils where the teacher plays the role of the unique arbiter is the most outstanding. The notion of "collective reasoning object" can be applied to this dialogue. The types of the dialogue can be endlessly multiplied "pupil-computer", "educational programe-pupil" and others.

In the context of this research the essential in the dialogue is its internal side.

Pupils' judgement closed to the teacher, directed and verified by the general logic of the dialogue, the opinion of the other participants, and the possible deviations of their behaviour, for example, in the situation of misunderstanding are regulated not only by external motive of the teacher and pupils, but mainly by correspondence of the subjective internal pupils' experience with the content of the discussed question, involuntary self-actualization of different mental elements under terms of interaction of dialogue participants. Reflexion of pupils is filled with sense- in pairs and situations of multiple dialogue and in the case of disagreement with other pupils, and when their opinion is changing. Personality "Ego" is communicating with "others" like the writer, in M.M. Bakhtin's opinion, is associated with his main character. "The others" can be a teacher, classmates or somebody else who reflected in the child. The dialogue is spreading between personal and essential features, as an internal and external "Ego", like existing personality and individual traits.

Sense formation, sense updating, sense rising are acts that permanently accompany the above-mentioned variants of dialogue of the pupil "with himself" (including the dialogue with "the other"), they take the form of their premises, an actualizing factor or their results.

The most significant characteristic of the dialogue in the education, thanks to which we achieve the above-mentioned spiritual product consists in the fact that the dialogue is developed and is organized on the equal parity basis for the parties concerned . That's why in situations of subject –object type, that maximum limit children with their choice of sense priorities, the dialogue is impossible. The educational process acquires here the qualities of imposing ideas, not "bringing up" the meaning, the teacher's pressure deprives the pupils of independent thinking and destroy the dialogue basis. Subject-subject model of education doesn't only give such opportunity to pupils, but stimulates them.

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Maslova U.A.

Sense sphere of death young people: results of research*

This articles is a summary of results of the practical research of sense sphere of the death young people. The participants of this study are students from 7 to 11th forms of the specialized (correctional) boarding-school № 36 for the death and children with hearing disturbance in Stavropol, in total 60 people. The choice of methodical ware was hindered by hearing disturbances of the young people. However, taking into consideration the requirements to methods of work with deaf people , from a number of methods used for sense sphere studies we have chosen the following: test "Self-portrait", test "World image"[1], test by M. Koun "Who am I" in the modification proposed by Ignatieva S.A. [4], the modified method by M. Rokich "Value attitudes" [5], colour test of relations (CTR), the method "Chairs" to reveal the relevant circle of the others.

In the circle of the relevant others the majority of the deaf students from the 7 th and partially from the 8 th form included first of all adolescents of the same age: friends, siblings, cousins, that show their orientation to the norms adopted among the adolescents of the same group. The students of the 9-11th forms hardly ever mention friends. Approximately half of the respondents, without specifying the gender, has indicated grandparents and relatives. In 8 cases (13%) they have mentioned the dearly loved person, a real one or imagined one. The fact that the pupils included into the group of closed people teachers, neighbors and other people testifies that they have a social orientation and high social activity (5% of sampling, active members of school self-government).

We have received interesting results using the test by M. Koun "Who Am I", proposed by S.A. Ignatieva. The way of analysis, described in this work, turned to be inapplicable to deaf respondents, that's why we studied only the content of reply. The reply was referred to one of the categories: a questionnaire: (name, age, address); self-esteem (the assessment of personal qualities, appearance, housekeeping, health); life plans; favourite occupations, favourite activities; relation to significant others (relatives, friends, representatives of the different sex); achieved success. The list of personal features, according to which deaf students were assessing themselves, turned out to be diverse, but it was similar to the list of their classmates so we can make a conclusion that they accept external appraisals. They have rarely mentioned we group affiliation, we could find three we group: students' group affiliation, national and religious group affiliation. Hearing disturbance is mentioned by five respondents (8%), one of them consider it as a source of the income (pension).

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The test "Self-portrait" discovered several for the death young people aspects of self image: gender affiliation, significance of intellectual abilities and relation of the environment. In some cases the plot included the objects, having for respondents high personal value: children, love, sport, cars, nature, power attributes, wealth. The test «World image» showed, that 41% of death respondents have a formed planetary picture of the world, 34% have a landscape picture of the world. 20% of respondents draw the world in a metaphorical way, very often showing the ideas of friendship. 3% of respondents made an abstract picture of the world and 2% of their close environment. 22% of respondent draw some limits between the parts of the world, obviously it reflects unknown side of the world outside school, though in 15% of cases it seems attractive, and in 7% as hostile and dangerous.

Using methods of CTR, the respondents were supposed to range standard eight-colored set of Lusher then to find the appropriate colour for the following notions: 1.friend (for gilrs – her best female friend); 2.parents; 3.education; 4.self; 5.club interests , 6. profession; 7.sport, 8. favourite occupation; 9. your house; 10. your future; 11.work, 12.love; 13.family; 14.children; 15.money, wealth; 16. vacations; 17 Institute; 18.liberty; 19.success; 20.rest. The deaf senior students used only 8 colours making associations that speaks about high differentiation of attitude to different life phenomena and therefore to a significant complexity of their sense sphere. The most positive attitude of young people with hearing disturbance is to love, their own personality, family sphere (children, parents, family), rest. We also report positive attitude to the friends, future, profession. The further education, sport, money were marked by colours that received both high and low ranges. That means that their significance varies within the limits of the sampling.

Using the method of "value attitudes" we have asked the respondents to arrange the 23 terminal values: a great goal, noble idea, faith, faithful friends, money received by any means; life full of pleasures; health, art, beauty, career, power, love, peace in the country, the possibility of having children, independence, self-sufficiency, pride, education, knowledge, understanding, equality, risk, hazard, a lot of events, glamour, popularity, a happy family, esteem of the environment, the possibility of seeing and understanding the world, career success, success, achievements, hobby, an interesting occupation; clear conscience. The most attractive values turned out to be health, a happy family and love. Among highly significant they arranged understanding, education, faithful friends, children, the possibility to see and understand the world. They consider insignificant such values of achievements (career, power, glomour, popularity) and values common to humanity (a great goal, a noble idea, faith; peace in the country, equality). They applied low ranges to such values as "risk, hazard, a lot of events" and «independence, self-sufficiency, pride».

So the sense sphere of people with hearing disturbances can be studied with psychognostic methods. As a rule the deaf senior students are oriented to life welfare, first of all in families, and at a small degree to achieve success and self-realization, their knowledge of their personality is small and it doesn't become the object of the reflexion, but in whole the relation to themselves is positive.

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Vursta N.I.

Students' research activity in the focus of creativity development*

One of the conflicts in modern educational environment is a contradiction between Creative development, Creativity and "Technological Ability". The term of "technology" crossed the production borders long time ago and gained new areas of human activity including education. For example, we can find in pedagogical texts the description of the "technology of personality-oriented education" [9]. We will consider Technology of education as a complex consisting of: "image" (presentation) of planned results of education; means of current trainees' state diagnostics; set of education models; criteria of choosing the best model for the current situation [4]. In certain cases technology comes out as an element of method but in the frame of the our discussion we would consider important to think of the technology as the "development" of method, and of the latter as the "reductive technology" which is reflected in students' mind as a trace, as an image of the method" [1].

"Technological process" of education didn't change the educational ideal which represents the development of creative potential of a man [7]. How adequate are educational purposes and means (technologies)? Can pragmatic, structured educational technology at school (in other words models with given result) contribute to the development of creative basis?

The survey of present-day pedagogical and psychological research shows that there exists scientific and practical interest in integrated approach to the problem of co-correspondence between technology of education and development of creative potential. This problem analysis can be found in particular in studies of creativity as a phenomenon of human activity.

The common statement was made that understanding the essence, the nature of creativity, its psychological mechanisms was one of the most difficult tasks for personal psychology and its development. One of the interesting interpretation of creativity was suggested by A. Maslow who differentiated "talent creativity" and "creativity of self-actualization". According to A. Maslow creativity of self-actualization "is spread wider and is closely linked to personality, appearing day by day not only in great and evident creativity products but also in other different abilities, as for example in peculiar sense of humor, in doing anything in a creative way, like teaching… " [6, c. 223] In other words creativity is understood not from the positions of a result (creativity product) and not as a set of personal features (for example, intellectual abilities to generate ideas, to decline stereotypes in thinking, to offer a hypothesis), but as a realization by a person his/her own individuality. The unique human individuality can be seen as a

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certain creative act that leads to the conception of creativity as a process of showing up one's own personality.

Review of Russian psychologists' texts (V.G. Ananiev, D.B. Bogoyavlenskaya, N.S. Laytes, Y.I Ponomarev and others) that describe the problems of creative abilities development as well creative thinking, let us emphasize a series of statements used in pedagogical science to work out different aspects of students' creativity:

- every student has abilities to creativity; creativity of students and creativity of adults have one common psychological and pedagogical basis;
- differences in demonstrating abilities are seen in the activity that is why effectiveness, speed, dynamic of changes, links with other personal components require individualization of educational process;
- creative abilities can be developed; at the same time the important role is given to so-called transfer mechanism providing succession in developing these abilities in different types of activities;
- creative features and qualities are developed during the process of acquiring educational content and a research of effective technologies must be held as a mechanism of self realization of the content.

The issue of managing the creative process is also substantial. On the one hand there is a tendency to link management with algorithmization of the creative activity, elaboration of methods the use of which could lead to the revelation of something new. Another trend is characterized by negation the direct management of creative activity. It is a matter of creating favorable conditions for creativity.

The most perspective educational technologies are those built on student's research in educational process (research learning, research method). Research methods have been actively used in foreign, mostly English-speaking psychological and pedagogical texts (Klarin V.M.). In Russian science this subject is worked out by Leontovich A.V., Poddyakov A.N., Savenkov A.I. and others.

The research activity (including student's one) represents a special type of intellectual and creative activity appearing as a result of the search activity mechanisms on the basis of research behavior. But if the process of research is always a creativity when at the end a new knowledge appears then we can claim that students' research activity is one of the most important conditions for developing the creative potential of a student. In other words the educational environment based on a research method represents a necessary breeding ground for awakening and developing the creativity. With the help of research activity we overcome conflicts between technological ability and creativity. Our school faces a very serious practical task to create a model of organizing the research activity in complete teaching and educational process. It is important to find in this model a compromise between the requirements of the state set for the education process and the necessary freedom and lack or strict rules for creativity. Thus we have to talk about elaboration and experimental realization of such a model of organizing the research activity in school educational process which could contribute to reveal of own personality of a student.

One of the key problems when realizing this model is the search for reliable methods of scientific analysis of creative personality. In particular it concerns the impossibility of creating the valid creativity test because of contradiction between:

– essence of the text as a standardized procedure of survey on given set of parameters;
– essence of the creativity as bounding the frames of given and known (which was noted by the author of one of the most widely use creativity tests – E. Torrance).

There is no doubt that when exploring the results of the model of organizing the research activity in the frame of creative ability development it is necessary to use available methods (Guilford test, D.B. Bogoyavlenskaya's method of creative field and others). On our opinion research education makes additional possibility to analyze the creativity. One of the components of research model of education is student's research. Its algorithm is described in pedagogical books, common features and peculiarities of student's and scientific research are also revealed. The attention is paid to the similarities between the research process (as well as student's one) and the famous scheme of G. Wallis who set down four stages of the creative process. Wallis' scheme presents a line with four segments with moving directions from the left to the right:

«Preparation» -------- «Incubation»----------«Illumination»----------«Verification»

As a result of student's research there appears a certain product – a text. The Text is a creative act regardless of the level of its newness and public utility. The process of students' text creation (even taking into account the compilation) stimulates the demonstration of personality and contributes to the transformation of intellectual, cognitive problems into an emotional state. It is vital as the transformation of a cognitive component into an emotional one is one of the main principles of developing creative abilities of a person.

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Martirosova L.M.

National educational standards as a factor of the educational management*

The standardization of the educational process is one of the main features of the contemporary national education. Its necessity and practicability are generated by a range of conditions, including problems of the methodological level. As those conditions make appear standards, so the standards are connected directly or indirectly to the problem of pedagogical management [6, 7]. Moreover, there are some bases to consider standardization as the highest, strategical level of pedagogical management. Besides we do not take into our consideration the fact that standards are the bases for those aspects of management which can not be referred to pedagogical ones. (educational management carried out by management units, by the heads of educational establishments and so on). In our research we consider standards like pedagogical phenomena, though they have some global aspects [5].

First of all, according to the theory, the system is disposed to destruction, if it is too rigid. Such "rigid systems" were in the past, for instance, typical educational programs, the teacher had no right to go out their limits as a matter of facts.

In the compliance with them, pedagogical management, which function they completed, and in some cases are still carrying out, had a strictly regulated, rigid character. It is not the merest chance that they are disappearing and partially have already disappeared.

According to the same theory the system has a tendency to be demolished if it has too many "degrees of liberty". A great amplitude of the fluctuations is arising and can shake the system. As an example of such freedom, of the system which was too flexible, we can quote, the state of the national education system in nineties of the XX th century, when a lot of different educational establishments appeared. Among themgymnasiums (classical and practical), lyceums (specialized and professional), schools - academies, top class schools though traditional ones still existed. Each type of school started to declare their own content of educational process; as a result a threat of destruction of the unique educational space within Russia appeared.

Standards, national by their status, appeared as a consequence of the need to hold the education within the unique space and, consequently, are called to fulfill the very important regulating function. In this sense they can be regarded as a mechanism of pedagogical management at the general scale of the country. The function of the state educational standards is certainly connected to the fact that they establish the continuity of the different stages of education, and being obligatory for different types of school, harmonize their activities [4].

Other functions of educational standards as mechanisms of pedagogical management attract our attention. Standards fix attention at the low, minimum level of

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educational content that must be assimilated. From the point of view of pedagogical management, it is very important that the teacher and pupils are quite free within the standard to choose concrete forms of learning the content and educational technologies. Moreover the teacher and pupils are free beyond the scope of the standards, they are only limited by class hours which are set up by the standards. It is easy to make a conclusion that one standard can result as a matter of fact in unlimited quantity of working, authorial programmes including their typical versions. So standards express philosophical relation of general and particular , particular and unique. Determining global strategy of education in the country and being a kind of socio-genetic programme of bringing up the rising generation, however standards give a great amount of freedom for their realization.

In the context of pedagogical management it is important that the teacher, school, management units being quite free at the level of choice of educational material, have no right to violate standards at the level of content assimilation by the pupils. All the extra material and knowledge that the pupils can acquire are inevitable

and welcomed, but they are result of their free activity, that is not obligatory. [1, 2, 3]. The above-stated limits, described by the standards, are undoubtedly important components of pedagogical management, teacher's regulating acts of pupils' activities.

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Pedagogical archeology» and its concepts in educational environment*

Educational system in contemporary Russia includes the realization of educational tasks with the help of in-depth acquaintance of young students and pupils with world-famous, Russian and regional natural, cultural and historical heritage.

One of the most effective way of forming the personality of young people is the complex joint health-recovering, creative, research and culture protecting activity – archeological activity of pupils from secondary schools, students from Higher education, school teachers – organizers of search and research work, specialists in a specific science – heads of youth archeological units of further education, professors of Higher education, scientists – archeologists, museum workers, employees from Higher schools and universities of Academy of Science of Russia.

Nowadays when Russia is in period of changes, the educational system of the country contributes to this process a lot and supposes the possibility to realize this activity via the system of general and complementary education of our children. The main education links studying process with archeology by implementing regional component1. According to the existing normative base of Russian Ministry of education and science this activity becomes a competence of institutions of additional education and has to be realized through the touristic centers for children, out-of-school center to work with students, creation houses for young people, system of school and inter-school archeological clubs and centers. These centers in Rostov region are regional youth archeological Center "Sirguis» and archeological section of Don academy of science of young researchers in the Rostov Palace for young people's creative works, Rostov regional archeological and ethnographical youth organization "Boyan"; inter-school archeological clubs "Skif" and и "Rarog" in Shakhti and Novoshakhtinsk, youth archeological organization of students from historical faculty (South federal university. Since 1993 on the territory of Rostov oblast there has been implemented work with youth archeological unions in the frame of special author's programs. The Organizing Center of this work on the regional level is the Youth Archeological Center «Sirguis» located in Rostov Palace for young people's creative works. Scientific and methodological background of above-mentioned activity is held by the Chair of pedagogy and pedagogical psychology of South Federal University. In the frame of the system of school and out-of-school education this activity with pupils takes the following forms: city, regional, competitions throughout Russia, implementation of regional component, optional classes, off-classes and off-school activities (clubs, participation in city, regional and scientific seminars, conferences and archeological expeditions).

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Joint archeological activity of pupils, teachers and scientists has become lately in the focus of professional attention of archeologists, teachers and professors[2]. Elaboration of theory and methods on organizing youth archeological unions, interference of archeology, pedagogy, academic and educational process led to the appearance of new educational environment: «pedagogical archeology» (PA) [3]. For young, developing personality of a teenager PA represents a real possibility to become though their research activity a participator of new scientific facts discovery and their implementation in teaching process, science culture. The most prospective in this activity are information and project technologies which are considered to be the first steps in the retrieval and research activity and scientific research activity of pupils in the future.

"PA" includes a huge potential for developing in pupils:

- In-depth studies of history of the country and the home land;
- Abilities to analyze and interpret archeological sources;
- Skills of project and search-research activity on the basis of school museums and expedition camps;
- Solicitous attitude to historical and cultural monument and others.

Transformation of "PA" into an independent branch of pedagogy allows improving the results of educational and training system.

Pedagogical archeology represents an integrated system of practices, forms, methods of organizing cognitive, creative, social activity of children with broad prognosis orientation. Thus:

- object of pedagogical archeology is a special pedagogical system of land studies in additional education;
- subject of pedagogical archeology is a cooperation of pedagogical practices and applicable integrated principles of archeology;
- method of pedagogical archeology is an activity-based approach to personal development, system-based principle of the activity as anthropological phenomenon4.

Integrated nature supposes a wide use in PA concepts and terms of several specific sciences such as pedagogy, psychology, archeology, museum studies etc.

To illustrate this idea we can list some very often used concepts of specific sciences. Pedagogy: education, educational activity, educational process, educational environment, educational volume, educational adaptation, civil education, patriotic education, human pedagogical position, human educational paradigm, self-education, self-determination, self-development, self-actualization [5]. Psychology: adaptation, socialization, communication skills, social competence, age-specific psychology, micro-team psychology, creativity, scientific research activity, surviving in extremes6. Archeology: archeology, archeological periodization, archeological monuments, artifacts, archeological facts, experimental archeology, field archeology, civilizations, adjoining sciences in archeology (ethnography, toponymy, heraldy etc.), classification and typology, archeological exploration, cultural layer, culture, artifact, archeological

source, archeological object, typology, systematization [7]. Museum studies: museum museum-reserve (archeological, ethnographical, landscape etc), school museum; school museum regulations, social, educational functions of a museum; school museum team, school museum council, school museum certification, documentation, funds, collection, exhibit, school museum competition, search-research and collecting activity8. Natural and cultural heritage: natural heritage, cultural heritage, protected historical and cultural territory, conservation zone, recreation, protection of cultural heritage, monitoring [9].

As PA is in the process of formation, its concepts also have to be carefully developed. Here are some main terms in this filed.

Key concepts of Pedagogical Archeology:

Pedagogical archeology (PA), theory of PA, PA methodology, PA object, PA subject, PA language, PA methods, PA infrastructure, PA educational environment, PA pedagogical practices, PA development priorities, age-specific PA, PA system of signs, PA experimental component; PA integration, PA data base, PA categories, PA communication, PA configuration, PA semantics, PA education, PA innovations, PA school, PA values, mentality, PA phenomenon, PA semiotics, PA synergetic, meanings in PA, PA environment, PA information technologies, PA technical means and others.

Summary: We should understand pedagogical archeology as a specific form of archeological activity in the frame of Pedagogy as a science, concerned with solving pedagogical tasks in education and bringing-up process when a pupil, a teacher and a scientist work together in studying, protecting and using cultural historical heritage with a view of education, science and culture.

Archeology as no one science is the most multiple-disciplined and its potential for development isn't still exhausted. There is no one science or human's activity in its historical retrospective that could not be in the focus of this science. This state of affairs makes such young trend in educational environment of the country as "PA" very perspective. Pedagogical archeology in teacher's hands is as we assume the most effective tool of sociological and pedagogical impact on the developing pupil's personality.

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Samoylenko O.A.

Taganrog State Pedagogical Institute Diagnostic tools of studying of large families for address pedagogical support*

The necessity of systematic professionally put pedagogical and psychological diagnostics and the way of life and pedagogical potential of different family types, including large family is understood in psychological and pedagogical sciences and turns up now not only appeals, but the more developing problematics.

Contingent valuation methods dominate in modern Russian investigations of large families as considerably strategic and economical. There are not much investigations of such type, but they exist. Researchers found out comparative proneness to conflict of teenagers, psychological condition of children in small, large and incomplete families with the help of contingent valuation methods. In accordance with interrogation it is marked, that the biggest percent fell at conflicts with coevals [3].

It should be mentioned, that the idea of simultaneous using of several supplemental systems of different type gets more widely to pedagogical consciousness lately.

Thus, interesting collection of questionnaires for parents and pupils is presented in magazine "Education of schoolboys" by N. Derehmeva in 2002. There was described the test for parents: "On what basis is the attitude of the father and mother to the child based?" Then there is the mini-questionnaire "Education of children and their parents in faces; diagram of typical school day of pupil; questionnaire for parents; questionnaire – survey of parents on the first parent-teacher association meeting". Having received the results, it is possible to correct relationships between parents and children. It is possible also to choose the right principle of children education [2].

There is an experience of application for inspection of families of professionally developed personal questionnaires. However, there are considerable organizational and methodical problems. M.K. Akimova is evenly indignant in her introduction to the textbook at abandoned stream of diagnostic literature editions, their pirate character, innumerable number of mistakes, inaccuracy both in stimulus material and understanding and interpretation of system's results. [4]. M.K. Akimova recommends such methods for diagnostics of parent and children and marital relations as "Inquirer of attitude of parents to their children" by A.Ya. Warga and V.V. Stolin (61 statements, 5 scales); "Inquirer for parents "Analysis of family relations" by E.G. Ademiller (130 statements and 9 scales of typical deviations); "PARI (Parential attitude research instrument) inquirer" by E.S. Sheffer and R.K. Bell in his adaptation T.V. Nesheret (115 assertions, which allow to define an attitude to family role, attitude of parents to their child, superfluous emotional distance or superfluous concentration on a child). The

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ability of using T. Liri's Inquirers is also mentioned for these goals [4]. We suppose that more laconic and well adapted Inquirer of A.Ya. Warga and V.V. Stolin should be used for mass diagnostics of large families. The rest marked methods should be put to use only in problem cases for in-depth analysis (because of their baffling complexity and labour-intensiveness in filling and processing, higher demands of basic level of parential psychological level).

ACB Ademiller's Inquirer should be used for diagnostics of family education type. It allows determining the agreement/disagreement or uncertainty while choosing answer according researched parent's assertion. According to final results it allows to characterize the type of family education as one of the six: indulgent hyper-patronage, dominating hyper-patronage, brutal treatment, emotional rejection, heightened moral responsibility or third-rater. Evident benefit of the inquirer is the ability to determine the reasons of disorders in family education system, which are caused by peculiarities of parent's behavior, widening of parent's feelings because of higher protection of childish qualities in a teenager, educational uncertainty of parents or phobia of child loss, lack of development of parent's feelings, projection of personal negative qualities on a child, insertion of conflict between married couple in the sphere of education. The test "Do you know youthful psychology?" can be used as an additional method when determining the reasons of tactical mistakes of parents in conflicts with elder children. It consists of 24 statements, according which investigated person must show agreement/disagreement or mark difficulties in his answer. As a result of summation of gathered "raw" scores and their transference in standard (T units) we can define low, high or middle level of youthful psychology knowledge, which was reached by investigated person.

Thus, it can be considered, that the strong "diagnostic starvation" of tools for family relations research, including large families, has been overcome now. But the material, which we have and use now still should be systematized; it also needs strict scientific approbation according to all demands of standardization of methods for psychological and pedagogical diagnostics. And of course, authors and editors have to maintain selections of tools for their presentation; otherwise it is difficult for user to estimate the quality and professionalism of the suggested tool. To our mind, the creation of diagnostic systems of conceptually valid tool for the decision of typical, constantly appeared problems of social pedagogics is the most perspective. And on this point we have some positive experience. Thus, recently both public and government are concerned about problems of children from immigrant families, who left contiguous countries (mainly former union republics) because of different reasons (mostly because of military operations). Many of these families have many children. They have difficulties with Russian citizenship and state support; it is difficult for them to be accepted in social and public sphere.

The experience of creation of specialized method for immigrant families' diagnostics and their specific, including child, problems is interesting.

O.V. Gykalenko has prepared special textbook, consisting of 4 oriented on com-

puter processing questionnaires for pupils, which are aimed to collect information about attitude to different region cultures, relationships between classmates, psychological position in typical communication situations, attitude to school, forms of leisure organization, and acquaintance of children with their rights. One questionnaire for parents (preferable forms of public and intercultural education, significancy assessment of cultural factors influence on children), one for students and senior pupils of pedagogic faculties, one for young teachers and form-masters, experienced teachers, deputy principals and headmasters were also included in the collection of diagnostic methods [1].

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Kholodov A.U.

Psychological and psychophysiological features of posttraumatic stress disorders among miners experienced a technogenic catastrophe*

The problem of posttraumatic stress disorders that arise from technogenic catastrophes become more and more urgent. In our country and all over the world there has lately been an increase of different kind of catastrophes. Developing after emergency situations mental disorders significantly aggravate psychosocial adaptation of the injured people and severely reduce their labor activity.

According to research data, posttraumatic stress disorders can be found in 50-80 % of people suffering from acute stress and if the intensity of the stress is rather high, every person experiences the disorders due to stress. The incidence of PTSD among the population ranges, according to different study results, from 1% to 67% of variability, due to different methods of the study, particularities of the population, and in the estimation of some authors, due to the lack of the unique approach of diagnostic criteria of these disorders. In time of peace the incidence of the cases of PTSD among other mental disorders is rather small and ranges from 0,5 to 1,2 %.

However in our country as well as all over the world the amount of different kinds of catastrophes has been rising for last decades. These situations are characterized by the extreme impact on man's mentality.

In distinction to many other stressors, the participation in the technogenic catastrophe is a psycho trauma, because its sequences can appear in a long period of time. After returning to everyday life, the injured people face a lot of problems: distress, misunderstanding from the environment, a break of interpersonal contacts, psychosomatic disorders, the formation of indifferent attitudes and etc.

The variety of reactions to stressful situation and the skills of a person to cope with changing environmental conditions have their biological basis. Specifically the efficiency of adaptation is connected to mechanisms of regulation of central nervous system. Adaptative alteration of organism functions depends on changes of the interfacing work of cerebral hemispheres. That's why if we know the type of functional asymmetry, we can forecast the development of the posttraumatic stress disorder and it will help us to choose the right method of the therapy.

Nowadays in psychophysiology they carry out researches directed to find the correlation between different particularities of asymmetry and the indices of the person's asymmetry with his individual features and ways of reaction to environmental impact. [1; 2; 3]

In the period from 2003 to 2005 in town Shakhty of Rostov region we made a

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survey of the people injured after the technogenic catastrophe and the employees of the search and rescue service of EMERCOM (Ministry of the Russian Federation for Civil Defense, Emergency Management and Natural Disasters Response) who took part in the curing the effects of this emergency situation. In the structure of disorders the first place is occupied by mental disorders, especially by posttraumatic stress disorder.

Methodological and theoretical premises of the research are the models of PTSD development–psychological, biological and multi-factor ones, contemporary ideas of causes and dynamics of the development of PTSD, data received through the studies of physiological display of the border-line mental disorders, methods of psychological and psycho physiological research of posttraumatic stress disorders. However in spite of a great number of researches concerning posttraumatic stress disorders , there is no unique generally accepted conception, explaining the etiology and mechanisms of the origin and development of PTSD.

It is necessary to underline, that regular links of lateral profiles with some mental processes (for instance, cognitive, regulatory and other styles of emotional reactions) have been established[1]. At the same time the influence of profile of lateral organization upon individual particularities of development of posttraumatic stress disorders seem not to be enough studied.

So, the analysis of literature on the problem of posttraumatic stress disorders show that at the contemporary stage the clinical typology and classification of posttraumatic stress disorders connected to consequences of a heavy psycho trauma are still under analysis. Long posttraumatic pathological states, that appear after short- or long-term extreme impact are assigned to this particular group. As the very important characteristics of a heavy psycho traumatic factor they indicate the unexpectedness, the violent onslaught of the development of the catastrophe and the duration of the pressure, as well as the repeatability at the lifetime.

Apart from the hard influence of the stressor, the sensitivity of the individual to PTSD plays a very important role, that is not only testified by such particularities as the immaturity, asthenic traits, hypersensitivity, dependence, aptitude to excessive control, desire to overwhelm unwilling emotion, but among other the victimization attitude (the tendency to become a victim in the corresponding situation) or traits of traumaphil (retention of traumatic experience). They have lately attached the importance to psycho physiological aspects of stress, particularly to the life significance of the event, including the personal attitude to the threatening situation taking into account moral values, religious and ideological world outlook. The physiological state during the catastrophe, especially somatic deterioration on the back of sleeping and eating difficulties, can be a predisposing factor.

The carried out empirical research showed that the significant number of the injured people in the consequence of the emergency situation, experiencing neurotic reactions and displaying the signs of decrease of the social adaptation at the first stage of the development of posttraumatic stress disorders, are the people with left functional asymmetry. Hereafter we could register stabilization of mental state, quan-

tity indices are near the mark, a half of respondents displayed the traces of the compensation and subcompensation. The injured people with RFA contrast by depressive state from the very beginning and the tendency of the increase of these states further. Herewith they demonstrate functional disorders and psychosomatic diseases.

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Shchepkina I.V.

Psycho physiological and family predictors of adjustment of the intellect and motivation of achievements*

The literature analysis in the framework of the problematics of this research showed that level and conceptual characteristics of the intellect as well as motivation of achievements are linked to, on the one hand with such parameters of the environment as the styles of the parental upbringing [4; 5; 6; 9], and on the other hand, particularities of hemisphere organization of the brain [8].

However family predictors (styles of the parental upbringing) and psychophysiological predictors (interhemispheric functional asymmetry), responsible for adjustment of the intellect and motivation of achievements remain still unexplored.

173 declining families took part in our study. The adolescents at the age from 13 to 17, students of secondary school №1 of Essentouky, and their parents were the respondents.

We have used in our study: method of the registration of electroencephalograms; conversations, tests and methods of mathematical statistics.

To register EEG we used a certified electroencephalograph "Entsefelan" version "Elitnaya-M" 5.4-10-2.0 (13.02.2004), made by MTB "Medikom" in Taganrog.

It uses 16 standard leads with unipolar scheme and ear ipsilateral referents to register electric brain waves. To assess interhemispheric functional asymmetry we used the coefficient of the frequency asymmetry (CFA) and absolute coefficient of the asymmetry (ACA). Computer processing of results is made by the programme Statistica 6. Methodical tools include: «Test of achievement motivation», created by A. Mekhrabian [7]. To reveal the level of the psychometrical intellect we applied the "Progressive matrices" by G. Raven [1]. To identify the styles of parental upbringing we used a test – a questionnaire of the parental attitude by A.Y. Varga, V.V. Stolin [3]. Methods by N.N. Braguina, T.A. Dobrokhotova were used to determine a motorial, sensory and general functional assymentry. [2]. All the sampling of children was exposed to the procedure of the qualitative evaluation of the intellect level and achievement motivation. We have distinguished three levels of achievement motivation: high (that corresponds to a longing for success), medium (that corresponds to a medium level of achievement motivation) and low (that corresponds to a motivation to avoid failure). On the basis of the intellect we recognize three levels: high (high and very high), medium (medium and a good standard), low (a reduced level, bordering level and a handicap).

In our study as we wanted to study adjustment of the intellect and motivation of

* The article is submitted by the research advisor - the head of the laboratory of Psychophysiology and Experimental Psychology SFU, Doctor of Psychological Science, Professor Vorobieva E.V.

achievements , we assessed the pairs of indices of the intellect and achievement motivation: medium-meduim, high-high, low-low. We considered as the maladjustment all the other pairs of indices. The application of the method of multiple-factor ANOVA let us specify that the significant influence on the intellect and motivation of achievements of children is exerted by such factors of parental upbringing (by Varga A.Y. and Stolin V.V.' questionnaire, like a scale 2 (social desirability or cooperation) ($F=26,559$, $p<0,001$), scale 1(acceptance-rejection), in what connection the adjustment of the intellect and motivation of achievements corresponds to the acceptance in parental style of upbringing $F=10,563$, $p<0,001$).

If we find the maladjustment of the intellect and achievement motivation, in the style of parental upbringing such scales as rejection ($F=26,559$, $p<0,001$), "a little looser" ($F=9,485$, $p<0,001$) and a symbiosis ($F=18,669$, $p<0,001$) are predominated.

To clarify the influence of FIA upon the adjustment of the intellect and achievement motivation we also used multiple-factor ANOVA. It was revealed that, in the group with adjusted level of the intellect and achievement motivation there was a sinistrocerebral type of functional assymetry. But in the group with the maladjustment of the intellect and achievement motivation there was a dextrocerebral type of functional interhemispheric asymmetry.

The significant discrepancy was received for both groups in accordance with the factors "asymmetry of the vision sense" ($F=4,17$, $p<0,05$) , "asymmetry of sense of hearing" ($F=10,682$, $p<0,01$), "tactile asymmetry" ($F=25,552$, $p<0,001$), "motorial asymmetry" ($F=4,814$, $p<0,05$), "general asymmetry" ($F=12,544$, $p<0,001$).

To find the intercommunication between indices of interhemispheric asymmetry and the level of the psychometrical intellect we applied the correlation analysis of the results according to G. Raven' test and indices of CFA (coefficients of frequency asymmetry) of frequency bands α, β1 in the background sample of EEG.

As the results we can cite the significant coefficients of band correlation in α –band for the pair of leads F7-F8 ($r=0,55$; $p<0,05$), in β–band for the pair of leads Fp1-Fp2 ($r=0,58$; $p<0,05$). In theta-band the significant coefficients of band correlation with indices of psychometric intellect were received for absolute coefficients of asymmetry (ACA) in the pair of leads F7-F8 ($r=0,29$; $p<0,05$), as well as for relative coefficients of asymmetry in the same pair ($r=0,32$; $p<0,05$).

The multiple-factor ANOVA was used to assess the influence of interhemispheric asymmetry on the level of psychometric intellect. The expressed interhemispheric asymmetry in theta and β– frequency bands in front leads has a great influence on the level of psychometric intellect: for the pair of leads Fp1-Fp2 in theta band ($F=3$; $p<0,05$), F7-F8 ($F=1$; $p<0,05$); for the pair of leads F3-F4 in β–band ($F=6$; $p<0,01$).

With the help of the multiple-factor ANOVA, we appraised the influence of the interhemispheric asymmetry on the level of achievement motivation. The significant influence was recorded in pairs of leads C3-C4 in α –band ($F=2,39$; $p<0,05$). According to received data in our study, there is a direct correlation dependence between achievement motivation of children and their parents. ($r=0.31$, $p<0.05$). However

"mother's" and "father's" effects are not equal. So, it was discovered, that the correlation of achievement motivation in pairs "mother-son" is inversely proportional ($r=-0.43$, $p<0.05$), but in pairs of relatives "father-son", the correlation of achievement motivation is directly proportional ($r=0.8$, $p<0.01$).

Conclusions. In pairs of relatives of the first degree of propinquity (parents-children) there is a significant correspondence according to indices of motorial asymmetry. In pairs of relatives "father-son" there is a significant correspondence of indices of the motorial, sensory and general functional assymentry. Higher level of psychometric intellect of children corresponds to a deeply expressed sinistrocerebral asymmetry of front and centre parts of cortex. The expressed sinistrocerebral functional asymmetry according to electroencephalogram is a predictor of adjustment between the level of the intellect and achievement motivation, the expressed dextrocerebral functional asymmetry testified by EEG is a predictor of maladjustment between the level of the intellect and achievement motivation. Such styles of parental upbringing as the rejection and hostility are in the inverse dependence with children's achievement motivation, but acceptance and cooperation, positive interest are in direct dependence with high level of achievement motivation of children. The achievement motivation is also linked to the achievement motivation and age of the parents.

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Akopov G. V., Bakshoutova E.V.

The first all-Russlan conference "Psychology of conscious: the current state and aspects»

By the end of the XXth – the beginning of the XXIst centuries problematics of the conscious has become a contrapuntal topic of global changes in the modern world. The alternation of the centuries evokes a particular acuteness of existential sufferings, and activates scientific research of unique bases of human life and a new paradigm as well. The last decades of development of scientific psychological research in Russia and abroad show that the most important problem is the problem of conscious which is intensively studied not only in psychology, but in the whole complex of natural, humanitarian and social sciences.

On the 29 th of June – the 1st of July the first all-Russian conference "**PSYCHOLOGY OF CONSCIOUS: THE CURRENT STATE AND ASPECTS**" was held in Samara (supported by educational grant № 07-06-26680, leader of the project G. V. Akopov).

The main trends of the conference: Theoretical and methodological problems of conscious in modern science. *Creative heritage of national science in the field of the conscious studies. The main trends of conscious studies in foreign science. Structure of the conscious. Psycho semantics of the conscious. Psychology of the conscious in the aspect of historical backgrounds and perspectives. Mental types (poly mentality) of the contemporary Russia. Self-cognition* and *self-understanding of the subject as a problem of conscious. Experimental psychology of the concious. Metacognitive processes in personality, conscious and reflexion. Conscious as a state, altered states of consciousness. Economic and legal conscious. Psychology of the responsibility. Ecology of the conscious. Conscious and education. Ontogenesis of the conscious. Conscious and cultural-historical context. Conscious and non verbal communication. Conscious and studies of globalization. Applied and practical psychology of the conscious.*

More than 160 people took part in the conference from more 29 cities: Altemievsk, Balakovo, Balashov, Barnaul, Birsk, Bougoulma, Volgograd, Voronezh, Izhevsk, Kazan, Krasnodar, Moscow, Naberezhnye Chelny, Nizhni Novgorod, Omsk, Orenbourg, Oulu Омска, Оренбурга, Оулу (Finland), Perm, Rostov-on-Don, Samara, Saint – Petersbourg, Saransk, Saratov, Slavyansk-on-Kuban, Smolensk, Tomsk, Togliatti, Ufa, Cheboksary. The theses and articles were sent not only from different Russian cities , but from a number of the cities of CIS. More than 60 of conference participants made reports and presentations.

The conference was opened by V.P. Zinchenko**,** Doctor of Psychological Science, Academic of RSS, professor emeritus of Samara State Pedagogical University

Scientific programme didn't contain only discussions of theoretical and methodological problems of conscious psychology(plenary and section sessions) , but issues of the practical work. In the frame of the conference there were presentations of the

new psychological publications, psycho diagnostic complexes, evening lectures and master classes.

At the last meeting we decided to hold conferences of conscious psychology on a regular basis. So it would be advisable to create a permanently working Coordination Council and a section within RPS, that would be responsible for organization of conscious psychology problematics.

Information on the order of presentation of publication

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