

PSYCHOLOGY OF INTERGROUP ADAPTATION IN ORGANIZATIONS AS THE INTEGRATION OF SOCIO- PSYCHOLOGICAL AND COGNITIVE PARADIGMS: SOME RESULTS AND PROSPECTS OF DEVELOPMENT

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Abstract

Article represents the review of empirical researches (2000-2013) based on the authoring concept of psychology of intergroup adaptation (PIA) in the organizations.

Some results of study of groups with different status of 45 crews of the ships of Navy of Russia (1129 servicemen), 7 rural schools of the Moscow region (351 people), 6 trade enterprises, productions, services sectors (140 employees) are provided. The system and situational analysis (the retrospective standardized interview), questionnaires "Diagnostics of social and psychological adaptation" of K. Rogers, R. Daymond, "An assessment of organizational culture" of K. Kuinn and R. Cameron, "A motivational profile" of P. Martina and Sh. Richie, Cynefin platform expert valuation of situations of administrative activities of D. Snowden are used. Results were processed by mathematical and statistic analysis methods, the principles of boolean algebra were used.

It is proved that in the majority of the organizations the subculture of the hierarchical relations and focus inside the organization dominate. The structure of values refers to the mental sphere of "the Russian model of governance". The cognitive component of intergroup interactions is a basis of genesis of PIA. The higher leveled in semantic space PIA psychological mechanisms correspond to simpler administrative situations of the Cynefin platform: situation "Order" – the psychological mechanism of joint activities, "Orderliness" – organizational identification, "Complexity" – intergroup non-adaptability.

The results of research can be put into a modern social and psychological basis for control of the organizations of different fields. To optimize the management it is expedient to use relevant social and cognitive indicators: coefficient of adequacy perception of a PIA situation (KV_sPIA) by its participants, design of PIA, psychological mechanisms in the

organization. Results of correlation of administrative situations and the PIA psychological mechanisms can be used as an additional technique of diagnostics of the organization, based on traditional methods.

Keywords: intergroup adaptation, organizational psychology, organizational changes, organization, psychological mechanism, social and cognitive psychology.

Complementary combination of paradigms is the natural direction of development of psychological knowledge. The concept of psychology of intergroup adaptation (PIA) in the organization became result of addition of social and psychological and cognitive approach to study of the intergroup relations. The concept represents set of the initial theoretically reasonable and empirically approved regulations of the content, genesis, methodology and a technique of study of adaptation of groups of the organization to each other in diversity of situations of joint activities, the main regularities, the principles and mechanisms, social and psychological ways, means and technologies of optimization of intergroup adaptive process. Main objective of development of the concept is: using of the intergroup adaptive phenomena as a resource for increase of efficiency of controllability by the organization. The concept, according to the prof. Korchemnoi P. A. [1] is an example of the concept of the average level according to R. Merton [2]. Long-term authoring research of PIA on the ships of Navy of Russia [3] became an empirical basis of its reasons.

PIA is shown as process/result of optimization of interaction of groups. PIA is characterized by the appropriate subcultures, including motivational, cognitive, emotional, behavioral and integral components. We revealed regularities, formulated the principles of study and control, approved mechanisms and PIA strategy. Vitality, operability of the concept of PIA is confirmed by the example of the education organizations [4,5,6,7], rendering social, psychological and medical care [8], the public ethnocultural organizations [9], business organizations [10,11,12]. All these organizations are integrated, firstly, by belonging to dominating organizational subculture

"Order", with its hierarchy of the relations, focus inside the organization, similar to structure of system of values – the concepts relating to the mental sphere of "the Russian model of governance". Secondly, the organizations are close to each other by the main forms of manifestation of a cognitive component of the intergroup interactions which are cornerstone of genesis of PIA. Thirdly, for optimization of control these organizations used the PIA relevant social and cognitive indicators: coefficient of adequacy perception of a PIA situation (KV_sPIA) by its participants, , design of PIA in the organization, structure of the PIA psychological mechanisms of groups with different status in the organization.

1. KV_smga of its participants was received as a result of correlation analysis (Spirmen's Rs) of bases of situations of PIA on the ships of Navy of Russia [13]. 62% of situations were characterized by their participants as interaction of groups with different status. 1129 servicemen of 45 crews of the ships participated in inquiry. Selection of situations was based on R. Brown's interpersonal and group continuum [14]. As a result for reviewing 628 situations of PIA were used in which interacting groups received following KV_smga: ship management - 0,879, officers-0,772, warrant officers-0,371, foremen-contract employees 0,346, foremen on an appeal-0,598, sailors 0,771. Absolute values of KV_smga define stability of group in system of the intergroup relations of crew of the ship, and valence shows a position of activity of group in variety of the applied PIA models.

The positive value of KV_smga signals about application of traditional for this group algorithms of PIA in the organization considering status (imperious) position of group. The negative value signals about using by group of other models not corresponding to status position of group, more often hidden from the external observer. By means of KV_smga regularity of genesis which is defined by nonlinearity of perception of groups of PIA situations concerning the status situation in crew (fig. 1) is revealed. PIA is shown as poorly reflexed,

expressed in some generalized "other", being in a background, on the periphery of interpersonal interactions, but basic on its social and cognitive content phenomenon significantly influencing on productivity of joint activities of members of groups, the intergroup relations.

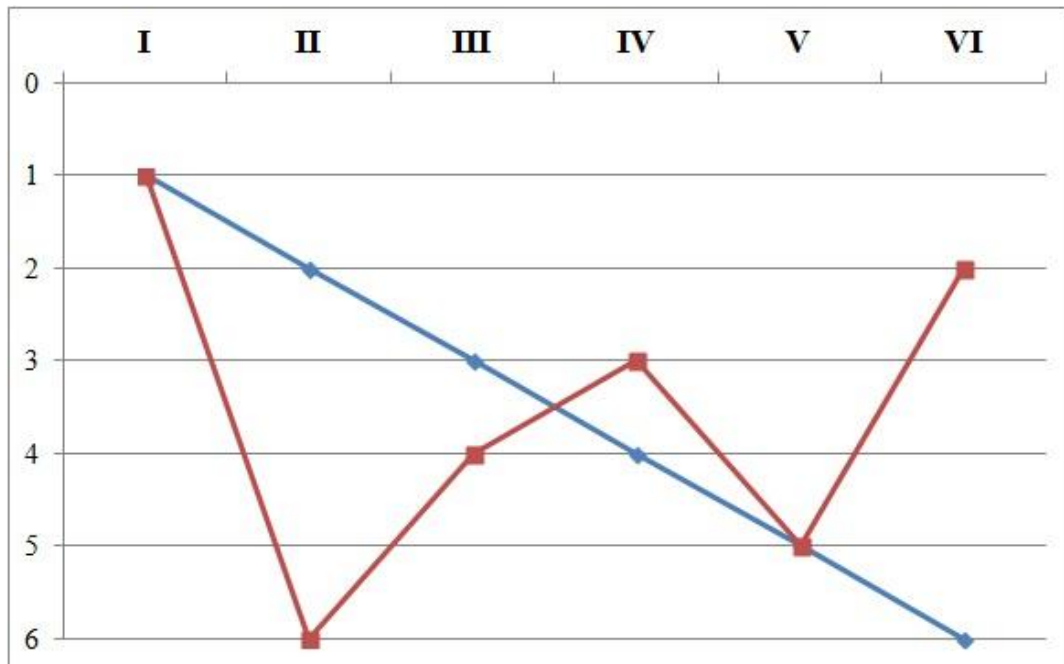


Fig. 1. The nominal (official) and intergroup adaptive status of the main categories of the military personnel of crew of the Navy ship (in ranks from 1 to 6, n=1129).

Note. Groups of the military personnel with different status: I – ship management; II – officers; III – warrant officers; IV – foremen contract employees; V – foremen of conscription service; VI – sailors of conscription service.

We will carry out the analysis of retrieved data. First of all, it is necessary to mark the high level of adequacy of perception of situations of PIA group of command of the ship (0,879) and sailors of crew (0,771). Such situation, polar on the majority of social and demographic characteristics of groups, speaks about stability of stereotypes of the official status in crew, absence of aspiration to change it. Valence of KVsmga is important. Its positive value speaks shows full acceptance by these groups of crew of status provision of these groups.

For management of the ship it is quite natural, predicted tendency. In PIA situations the high status of management of the ship is confirmed by the carried-out factor analysis of retrieved data which classified PIA situations on two groups: situations connected to the management of the ship (weight loading 4,232) and situations of all remaining groups of crew (weight loading 1,153). The group of management of the ship generally uses the forced diagram (algorithm) of PIA (82% of respondents). Ship management, as a rule, knows what it wants from all set of groups of crew. It purposefully imposes the will that is accepted by all in specific conditions of naval activities unconditionally. The counter diagram of PIA is used in combination with the forced diagram – 18% of respondents. As a rule, such complex is applied by group of management to officers of the ship, selecting among them groups of key experts, depending on combat-trainer tasks carried out by the ship, a stage of development of the organization. For example, during an active service it can be experts of radio-electronic fight and radio-electronic investigation, in case of execution of plan firing practice, experts of missile and artillery during other fighting exercises, mine and torpedo military units, in case of disbandment of crew of the ship it can be experts in supply, able to write off and hand over ship property, at a stage of physical wear of a ship, ship aging officers of an electromechanical military unit become a key experts, etc.

For group of sailors received high rate of KV_{smga} empirically confirms long-term experience of naval traditions in which accurately and unambiguously the status of this category of the military personnel is defined. For them background PIA (the nominal model corresponding to ship traditions and all military organization as a whole) is the usual scheme of PIA in crew of the ship. It is hypothetically possible to assume that during the change of a sign of valency (negative value of KV_{smga}) this group would have a possibility to use the scheme of PIA resource. In our research 19% of the interrogated sailors showed on such scheme in interaction with representatives of other groups of the

ship. Besides, we consider important to note that the compulsory scheme of PIA concerning other groups of sailors, for example other term of an appeal, can put in action the PIA resource model of this group as a whole in ship crew. In our opinion, known forms of deviant behavior of members of the groups which aren't accepting norms of military service, breaking authorized relationship in group compensate lack of external group activity, accumulate some kind of charge of negative energy in group. Demanding the exit, the arising tension is unconsciously used by group for pressure upon other groups of higher status with the purpose for change the situation in hierarchy of the organization. There is some kind of "blackmailing-demonstrative" attempt of redistribution of the statuses. Thus, PIA process declares itself in ship crew where the group of the sailors is a subject which subjectivity, as a rule, isn't perceived by other groups, isn't admitted and doesn't considered. At the same time such high status in situations of PIA can be explained by processes of self-regulation of group which are based on: low requirements to other groups of crew of the ship, acceptance of the place in hierarchy of the organization, all ship service as given, absence of a dilemma about change of existing orders brought outside, etc. Other explanation for the revealed phenomenon is possible. Interdependence of status indicators of groups in ship crew is the cornerstone. It is possible to assume that other groups, losing the nominal status for one or another reason, give the chance to low status groups to prove its worth. The reasons can be: inappropriate to admitted in the Navy hierarchy level of joint activity and communication of this group in ship crew.

Group of foremen-contract employees received $KV_{smga}=0,346$. Such value of an indicator of adequacy of perception of PIA situations shows quite certain, developed in ship crew stereotype of perception of this group by other groups and rather high level of group identification of foremen-contract employees. Despite difficulties of formation of this category on the ships of the Navy, connected with the material and household sphere (more than 67% of all

situations), this empirically revealed social and psychological aspect of success of formation of foremen-contract employees causes optimism.

PIA of foremen-contract employees passed according to the scheme of resource adaptation. The active party in this adaptive interaction was the group of foremen-contract employees determining parameters and the purposes for adaptation to ship service in new quality. Adaptive and role position of group of foremen-contract employees following group adaptive resources: independent nature of search and the subsequent application of social and legal methods of work with command of the ship and officers. "Vote by feet", i.e. dismissal was the main form of influence in case of not implementation of the contract. We revealed adaptive activity of group of the foremen-contract employees, connected with specific group inquiries and world outlook estimates of the subject of adaptation. But the adaptive purposes and tasks of contract employees and first of all officers of the ship often didn't coincide owing to various understanding (interpretation) of nature of the most adaptive situation, and admissibility of use of these or those strategy of intergroup adaptation. On the one hand a scene of action of not implementation of requirements of the contract connected with separate placement from the military personnel on an appeal, working loading, implementation of schedules of dresses and watches, etc. take place. On the other hand - "psychology of the mercenary" in the most open manifestations. Therefore the number of applied protective strategies of PIA in groups of officers and contract employees especially at the first stage of intergroup interaction considerably exceeded number of strategies of intergroup mutual understanding. As a rule, only after intervention in a situation of command of the ship constructive interaction of these groups was resumed.

More difficult position on the measured indicator is held by warrant officers of the ship, $KV_{smga} = -0,371$ (the 4th rank in PIA situations). The substantial analysis of retrospective questioning showed that warrant officers more often, than other groups of crew of the ship show an intergroup

discrimination, for the sake of self-assessment increase simply because the positive attitude towards is more preferable than a neutral or negative self-assessment. From here it is often a causeless pressure upon the subordinated sailors, with the subsequent withdrawal from a conflict situation, its transfer to a zone of competence of the officer of the commander of a military unit (the 12% of the interrogated officers pointed to such situations). Thus, for the member of other group the additional difficult situation "is created". Warrant officers of the ship use rather wide range of algorithms of PIA. The compulsory scheme dominates in 55% with sailors, counter – in 25%, background – in 20% of situations. With officers the counter – in 23%, resource – in 16%, background – in 52%, compulsory – in 5%. The last is realized, as a rule, in interaction between the young officer and the warrant officer having material resources, the expert from which the officer in the solution of an objective completely depends.

The group of foremen on an appeal during the conducted research received coefficient of adequacy of perception $KV_{smga} = -0,598$ (the 5th rank of the status in SPIA). In crew of the foreman of conscription service take quite certain position connected with traditions of ship service. At nominally official hierarchy of the 5th rank, in the sea, when there is no other highly status experts, responsible duties are assigned to foremen of conscription service with which foremen cope. During parking at a pier, under repair, at crew disbandment their role is limited to a role of "the senior sailor". The received negative valency shows not the hypothetical (as with sailors), but the real high probability of manifestation by foremen on an appeal of the behavior corresponding to signs of non-statutory relationship. With subordinates they use compulsory model of PIA in 34% of situations. With officers 22% of a situation of PIA are developed by a background PIA, in 5% according to the counter scheme (as a rule in a distant campaign, on an active service).

Officers are the most non-uniform group. The strip of distinctions lies in age space, activity, semantic, etc. continuums. Level of KVsmga at officers of the ships = $-0,772$. Size is determined by high official (imperious) capacity, nominal definiteness. Thus valency of KVsmga shows not only high activity of officers in joint activity and communication, but also dissatisfaction with the real status situation. The received results show that unlike group of sailors, officers use wider range of models of intergroup adaptation. It is defined by the subject-object relations. In case with group of command of the ship PIA is under construction of resource (63%) and counter schemes (37%), with other categories of the military personnel - compulsory (73%) and counter schemes (27%). The ship service of the naval officer is connected today with need of overcoming of numerous resistances, peculiar economic, political, social and psychological "barriers". In crew of the ship phenomenology of ship myths poorly studied in military psychology is widespread. It is a set of mutually coordinated, but the distorted roles which are played by members of groups of crew. Such set isn't questioned in groups of crew, serves as the program for social contacts out of it and at the same time reduces flexibility of the group system. The hidden character of rules – a factor of their negative action on the identity of the military seaman. New members of groups, whether it be the young sailor, the contract employee, the warrant officer, the officer who have arrived to crew, get acquainted with already existing unwritten rules of ship service often of this concrete ship. Now they need to reckon with a certain objective given, reality but about which it is impossible to receive authentic data at once. As a result they are compelled to play by rules about which existence is learned only being punished for their violation which contents can only wonder. However similar rules maintain safety of structure of any group of crew of the ship owing to their secrecy, aren't discussed and don't change, i.e. exist all the time, maybe, even during the existence of group and all crew. Safety of ship myths is provided by group, through self-determination for this role of one,

several representatives from the members. Officers as the group possessing the considerable nominal status, in situations of PIA takes a special place in system of a formation of myths. Low status groups of the ship attribute to officers "group agreement of opinion". As a result in situations of PIA illusions of group about own perfection and invulnerability, in collective rationalization of the events, in stereotypification of other groups of crew are shown. On the other hand it is necessary to emphasize positivity of emergence of "group spirit" where the major role is played not by situational factors of ship activity, but steady characteristics of the group. First of all such, as directive leadership (group of command of the ship), group isolation.

Thus, the retrospective analysis of situations of PIA allowed to reveal regularities of genesis of PIA in ship crew, to correlate them to the received theoretical generalizations and results of the empirical researches conducted in foreign psychology. The most important results are.

First, a basis of management of PIA is in the whole acceptance by all groups of crew of status position of the own and other groups. On it the control system of all social and psychological processes in military collective traditionally is under construction. Secondly, despite unconsciously declared absence of perception of group of sailors on an appeal as subject of PIA by the majority of members of other groups, this group has the highest real status in PIA situations.

Thirdly, high level of group identification of the foremen-contract employees which is important social and psychological aspect of their successful formation by the ship is revealed. At the same time an obviously expressed "the psychology of the mercenary" of contract employees causes in groups of officers energization of application of protective strategy of PIA against this group.

Fourthly, it is defined that warrant officers more often, than other groups of crew of the ship use an intergroup discrimination, for the sake of self-assessment increase. The analysis of their PIA with other groups of crew

allowed to carry out classification of strategy of PIA in the organizations for criterion "reaction of group to negative social identity".

Fifthly, the group of officers of the ship in situations of PIA feels the maximum tension, they are subject to organizational pathologies. The price of a payment for ship service not always justifies the cost of achievement of a goal. It is result of irrational administrative thinking of considerable part of command of the ships and the officers, being reflected in a self-replicating organizational formation of myths.

2. The social and cognitive indicator "design of PIA in the organization" is reasonable on PIA material in educational system. Design of group – process and result of optimization of interrelation of social and psychological characteristics of groups: 1) motivational profile of groups (the adapted version of the Motivational Profile test of P. Martin and Sh. Richie); 2) organizational and cultural characteristics of groups (assessment of organizational culture of K. Kuinn and R. Cameron); 3) identification of its participants and informal relationship ("The test of social identification" of A.V. Bulgakov, the reduced option of a technique of the analysis of situations of PIA). The result of a harmonious design of a groups is a stable, but flexible structure that favors / prevents the PIA in the organizations. In 2006-2012 on the basis of seven rural schools of Solnechnogorsky district, Moscow region under our supervision, N.M. Egora studied the identifying of PIA determinants in a multicultural school educational environment (SEE) [15]. At 3 schools of SEE is defined as polycultural, in the 4th – single-crop (Russian). The general selection – 351 people. Relevance of research consisted in a contradiction between the critical growth of ethnic migration in Russia, the negative phenomena in polycultural SEE and knowledge of PIA determinants. In research the PIA model which includes three groups of determinant was used. Interpsychological determinants are shown at the level of the personality. Integrative potential of adaptation abilities, level of ethnic identity and tolerance of members of

interacting groups acts as criterion. Interpsychological determinants are shown at intra group level. Criterion is the social and psychological capacity of SEE.

Metapsychological determinants are shown fully at intergroup level and partially at group and personal levels. The criterion of determinant is the potential of a situation of interethnic interaction.

The experimental plan of research is submitted by modification of the "scrappy" quasiexperimental plan of Kempbel. The correlation analysis revealed interrelation between indicators of high level of adaptation of school students and its components, effective styles of the interpersonal relations, positive types of an exit from conflict situations, positive ethnic identity, high level of tolerance, characteristics of a situation of PIA. The factorial analysis of data allowed: to allocate 12 factors in polycultural SEE and single-crop – 7 factors. The comparative analysis allowed to draw the following conclusions. First, First, due to lack of migrant students in school groups in monocultural SEE among pupils determinants of personal level move to the forefront. Secondly, in polycultural SEE school students have a need of intergroup interaction, thus social and psychological determinants of PIA start dominating. Egorova developed and realized the Program of optimization of PIA enriching SEE. The comparative quantitative analysis of distribution of factorial structures of PIA determinants in polycultural SEE doesn't show significant distinctions between them. However the qualitative analysis allowed to define a difference between sets of the efficiency and destructive factors making determinants of PIA. Their main contents makes at polycultural school: for a metadeterminant – level of social and psychological disadaptation of the identity of members of interacting groups; integration of styles of the interpersonal relations; stability of a set of strategy of an exit from conflict situations; realization of interests of the group; presence/absence of members of own/other groups; duration of time of influence of a situation of intergroup adaptation for further intergroup interaction; for an interdeterminant – an integrated dynamic social and psychological factor in

indicators of social and psychological climate and social the psychological atmosphere; for intradeterminant – level of social and psychological adaptation of the personality, indicators of tolerance and transformation of ethnic identity of school students from families of migrants and locals.

It is empirically proved that implementation of the Program promotes increase of levels of activity and productivity of joint activity of pupils, strengthening of expressiveness of belonging to group, higher social and psychological adaptation, strengthening of positive ethnic identity and the general, social and ethnic tolerance. Among types of behavior of an exit from conflict situations cooperation, a compromise, the adaptation are more often used. Among types of the interpersonal relations friendly, altruistic, subordinated, dependent types are prevailed.

3. The last researches based on the concept of PIA, belong to social cognitive studying of a role of structure of the PIA psychological mechanisms (PM PIA) in management of organization development [16]. The theoretical basis of researches was made by complementary combination of the theory of knowledge management, organizational appendices of the theory of difficult systems in D. Snowden's understanding (KM expert, the head of the center specializing on consultation of the organizations for management of knowledge (KM - Knowledge Management) and organizational appendices of the theory of difficult systems) [<http://cognitive-edge.com/>] and the author's concept of PIA in the organizations [<http://av-bulgakow.ucoz.ru/>].

D. Snowden tipologizes the organizations for a certain way of perception and understanding of a problem in which there is an organization. There are five such administrative situations. The Cynefin areas have rough borders between areas, on a plan of Snowden, such visualization has to show difference of Cynefin from other four cellular matrixes, widespread in psychology and business sciences – the sense of the X or Y axes here isn't especially important.

Known (order) – area of a simple order in which events and the phenomena have the obvious and unambiguous reasons, they always lead to certain and invariable consequences. Thanks to it it is possible to predict precisely results of this or that action, to do exact forecasts of results of administrative decisions. To this area the organizations constructed on clear and rigid codes, charters, instructions, rules belong. The exchange of knowledge consists in studying of the set of rules and training of their use. Strength of such organizations – high efficiency, weakness – risk of an exit of a situation from the range captured by rules. Typical style of leadership – hierarchical, major aspect of activity of the leader – budget distribution, productions if their technology isn't too difficult.

Knowable (orderliness) – area of a difficult order. In the organization the events are caused by firm causes and effects, but communications between them are confused. Clarification of determinations demand high analytical resources. There is an obvious deficiency of resources and time. At the heart of creation of the organization there is own system of concepts, models, the practice. Training of employees here is directed not on assimilation of rules, and on assimilation of the language, the accepted models, ways. For support and clearing of the status of the members, such organizations use certification systems. The main social and cognitive feature of management - gradual, together with development of its system of concepts and language, decrease in a susceptibility to new ideas which are beyond the developed system of representations.

To compensate this shortcoming, simple appeals about importance of new ideas are useless. The management of the organization has to "stir up" from time to time (N. Machiavelli) developing traditions of behavior and thinking, a formulation of ideas and activities to master conservatism and stagnancy growth in the organization. Typical style of leadership – oligarchical, joint. To effectively cope with situations of area of orderliness, it is necessary to possess

the acquired knowledge and experiment in realization of a wide range of business functions.

Complex (complexity) – area of difficult nonlinear systems where studying of configurations or clashing identities in system the enterprise - market, resulting as interaction of a large number of groups and situations is necessary. Arising configurations seem explainable only retrospectively – such configurations are perceived, explained, but aren't predicted. The successful perception and understanding in this area requires plurality of the points of view on a situation. Here it is important not to hurry with conclusions, "grabbing" the first familiar configuration, and quietly and with concentration to observe, look for new alternative understanding of situation. The organizations connecting the members by the general ideas and values, the general experiences treat this area, they are cemented by trust and mutual obligations of her members, voluntary aspiration to cooperation. The exchange of knowledge is promoted by narrative technicians, use of stories. Leadership is based on a basis of naturally arising authority; it is matriarchal or patriarchal style.

Chaos (chaos) - communication area between causes and effects, apparently, are absent. The situation is chaotic, vortical. It is impossible to refer the events authentically to any familiar category. The situation doesn't give in to the analysis. Uncertainty of situations in the field of chaos makes impression of their "danger", "discomfort". The only reasonable social and cognitive sequence of actions in this области: 1) to work quickly and resolutely against chaos and uncertainty; 2) to observe immediate reaction to the actions; 3) to correct the actions and to work further vigorously. This tactics has to remove, eventually, in one of three other, more "comfortable" areas. It is very important to understand, that chaos area is a source of innovations and radical changes. Exactly here various levels of systems intertwine in one singular knot, so, that transition from level on level here is simple (up or down...). Therefore in search of changes it is sometimes expedient to plunge into chaos area consciously. It is possible to refer

management to area of chaos in crisis or emergency situations. Style of leadership is tyrannical or charismatic.

Table 1. Criteria, rates, indicators, techniques of identification of the PIA psychological mechanisms of employees with various status in the organization

PIA psychological mechanisms	Criterion	Rates	Indicators (scale of techniques)	Techniques
Intergroup non adaptability	Social and psychological adaptation capacity of interacting groups	Rates of the social and psychological adaptation capacity of interacting groups	Adaptability / maladaptive Self-acceptance / rejection of yourself Adoption of other / rejection of others Emotional comfort / emotional discomfort Internal / external control Domination / statement escapism	Technique of diagnostics of social and psychological adaptation of K. Rogers, R. Daymond
Social (organizational) identification	Organizational and cultural capacity of interacting groups	Rates of organizational culture of interacting groups	Relations (democratic, family) Result (enterprise) Creativity (akhtocratic) Order (hierarchical)	Technique of an assessment of organizational culture of K. Kuinn and R. Cameron in A.V. Bulgakov's adaptation
Joint activity	Motivational capacity of interacting groups	Motives of professional activity of members of interacting groups	MF-1. Need for a high salary and material remuneration MF-2. Need for good working conditions and comfortable surrounding situation MF-3. Need for accurate structuring work, feedback and information existence MF-4. Need for social contacts MF-5. Requirement to form and support long-term stable relationship	The test "Motivational Profile" of P. Martin and Sh. Richie in A.V. Bulgakov and A.I. Goncharov's adaptation.

			MF-6. Need for a recognition gain from other people MF-7. Requirement to set for itself the difficult purposes and to reach them MF-8. Need for a consequence and the power, aspiration to direct others MF-9. Need for a variety, changes and stimulation; aspiration to avoid routine MF-10. Requirement to be the creative, analyzing worker open for new ideas MF-11. Need for improvement, growth and development MF-12. Requirement to interesting, socially useful work	
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The fifth area - Disorder (uncertainty), an administrative situation in which among the members of the organization a tendency to carry a problem to that area in which they feel most surely is shown. In the area of uncertainty those aspects of the situation in respect are out of which consent of members of interacting groups has not been achieved. Area of uncertainty is flickering zones of social and cognitive component of psychology of the organization which at the same time are special areas of collective consciousness of the whole community, and special

Table 2. Structure of research selection in a context of administrative situations of the Cynefin platform (by expert estimates of heads of the organizations)

Field of activity	Organization name	Managers	Subordinates	Total
Administrative situation "Order"				
Production and sale of seasonings and flavoring additives	Ltd. Kolvi	15	15	30
Science and production, military industrial complex	Parent enterprise (SOE) of "Research Corporation" Precision Instrument Systems "	8	12	20
Trade	JSC "Aroma Lux"	5	15	20
Administrative situation "Orderliness"				
Production and sale of measuring devices	Ltd. Meteko	15	15	30
Administrative situation "Complexity"				
Services	Ltd. "CPCR-Express"	5	15	20
Production and services, military industrial complex	Pilot Plant JSC "Research Corporation" Precision Instrument Systems "	9	11	20
	Total	57	83	140

We developed a technique of diagnostics of structures of the PIA psychological mechanisms (tab. 1) for definition of cognitive areas of finding of the organization in a Cynefin platform context. As a result of studying of 6 organizations of various fields of activity (tab. 2) the ratio of a complex of the PIA psychological mechanisms with the Cynefin platform of D. Snowden is revealed.

The generalized results of deposits of PM PIA of employees with various status in all surveyed organizations are presented in fig. 2.

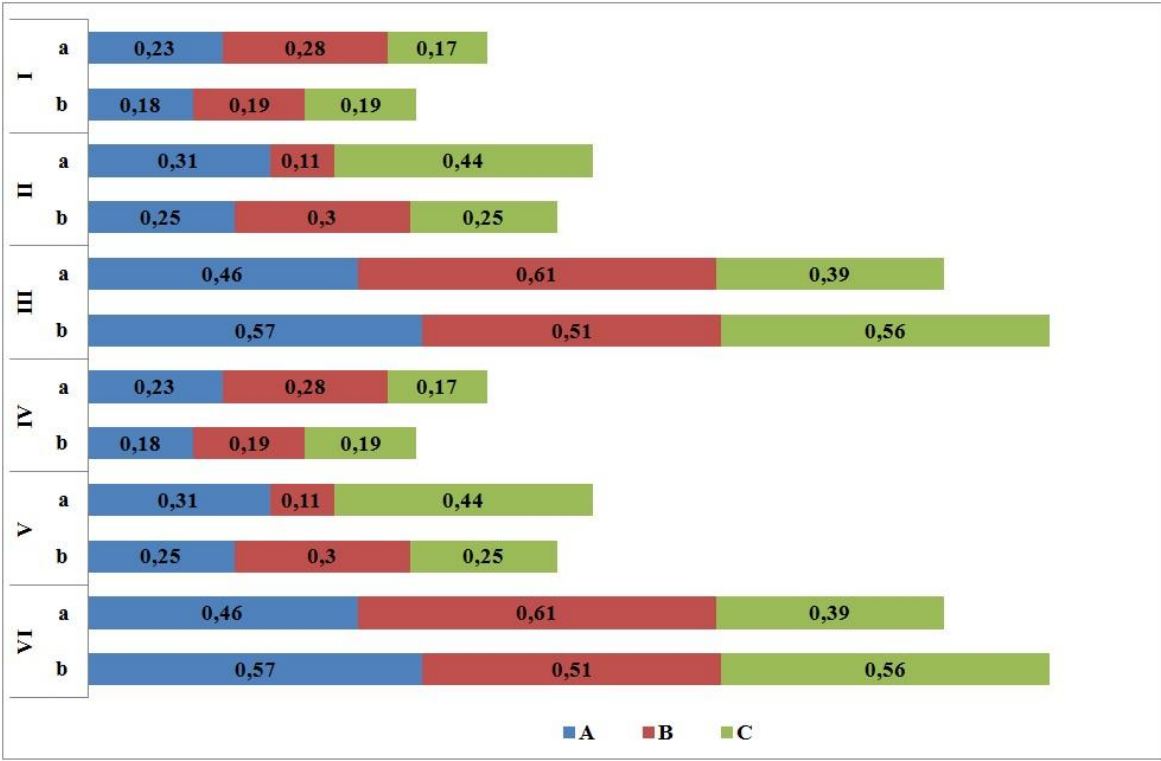


Fig. 2. Results of diagnostics of structure of complexes of psychological mechanisms of intergroup adaptation of employees with various status in 6 organizations (in shares, n=140 people).

Note.

Enterprises: I – JSC Aroma Lux, II – "CPCR-express", III – the Head enterprise, IV – Pilot Plant, V – Ltd. Meteko, VI – Ltd. Kolvi;

Groups: a – with the high status, b – with the low status;

Psychological mechanism: A – "Intergroup non adaptability" by criterion of social and psychological adaptation capacity of group, B – "Social (organizational) identification by criterion of organizational and cultural capacity of group", C – "Joint activities" by criterion of motivational capacity of group".

On the histogram the 3rd PM factorial models for each of groups of all 6 organizations are represented. Presentation of results is ambiguous as there is no clarity what group, as well as in what time PM will be involved. It is connected with event character, both PIA, and its PM. Application of some provisions of Boolean algebra [17], with further processing of results with application of the cluster analysis allowed to overcome the received difficulty and moreover to obtain data which considerably confirm expert estimates, to start building

typology of administrative situations in the organizations. Procedure of creation of typology was arranged as follows.

The organizations were classified by levels of probabilities 1) a simultaneous inclusiveness of PM PIA of both interacting groups (AB); 2) simultaneous functioning of the psychological mechanisms, at least one of groups (A+B); 3) simultaneous action of PM PIA of one of groups under a condition of not use by other group (A/B). These levels were paid off on the basis of ideas of Boolean algebra about probability of an event Ω - PM PIA use between groups with various status A and B (see fig. 3).

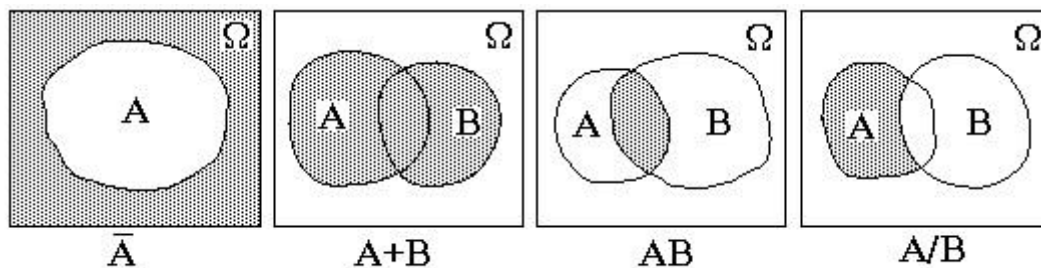


Fig. 3. Venn diagrams applicable to probability definition Ω - use of the PIA psychological mechanisms between groups with various status A and B [17].

In our case A – PM PIA of highly status group, B – low status. The PM PIA complex in the organizations can be at the same time presented by work, the sum, a difference of their deposits to PIA groups with various status of the organization. The event of AB consisting in simultaneous emergence of these events is called as work of events of A and B. To event of AB there corresponds the set which elements belong at the same time to sets of A and B, crossing of sets of A and B. A+B event consisting in experience there will be at least one of these events is called as the sum of events of A and B. To event of A+B the set corresponds which elements belong at least to one of sets of A or B, i.e. association of sets of A and B. A\B event, consisting that the event of A will occur is called as a difference of events of A and B, and the event of B isn't

present, i.e. to an event of $A \setminus B$ the set consisting of elements of a set of A, not belonging to a set to B corresponds.

$$\Omega = \Omega_a + \Omega_o + \Omega_m, \text{ where}$$

Ω_a – probability of realization of PM PIA "Intergroup non-adaptability by criterion of social and psychological adaptation capacity of group"

Ω_o - probability of realization of PM PIA "Social (organizational) identification by criterion of organizational and cultural capacity of group"

Ω_m - probability of realization of PM PIA "Joint activities for criterion of motivational capacity of group"

Legitimacy of such event approach to studying of PM PIA is confirmed by Boole's views. He considered the work, as representation of the main operations of thinking. In psychology there is a number of successful researches, for example, works on artificial intelligence (logical approach); reflection theory, algebra of the conflict, work about counteraction to terrorism of V. A. Lefebvre; A. Newell and G. A. Simon's information psychology, etc. [18].

So more highly-level PM PIA in semantic space correspond to simpler administrative situations. For administrative situations the following dominating psychological mechanisms are characteristic: "Order" – joint activity, "Orderliness" - organizational identification, "Complexity" - intergroup non-adaptability. Results of such correlation can be used, as an additional technique of diagnostics of the organization, based on traditional polling methods. The technique is well compatible to supervision, studying of documents, interviewing of heads and employees. As a result the predictability of organizational diagnostics amplifies. Application of objective and valid methods of social and psychological studying of the organization will help to reveal the potential of organizational changes, readiness for them, to substantially fill, concretize actions for optimization of human resource management of the organization, to resolve a contradiction between organizational psychologists

and heads of the organizations (our customers) in priority definition of the personality - organization.

The new instrument of management by the organization with use of knowledge of PM PIA as purposefully not used resource of the head is offered, starting them in practice, it is expedient to continue to develop modifications of diagnostics, the analysis, programs of correcting actions during scientific researches at the enterprises, in establishments, the organizations.

Conclusion:

The carried-out review of some researches executed within the PIA concept in the organization as theories of the average level showed that the concept on the one hand connects results of empirical researches with the general social and psychological theory. On the other hand, has the high heuristic potential which use is expedient by optimization of interactions of groups in various organizations, for increase of their stability and controllability.

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