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### **SOME ASPECTS OF EMPIRICAL RESEARCH INTO ACTIVITIES IN THE GROUP PROCESS**

*SUMMARY.* This article focuses on how experimental group activity is reviewed in the works of Russian authors. It examines the types of activities in the experiments, the ways of forming groups to perform the tasks and the parameters of the studies. The article describes the process of research activities in the group processes dealing with the issues of selection and value-semantic characteristics.

*KEY WORDS.* Activities in the group processes, the formation of groups, value-semantic sphere of personality.

There is no doubt about the importance of the content of the activity in the group processes. There are different effects of group activities in the psychological literature discovered, which are built around the base diverse in their objective contents and methods of their using.

R.S. Nemov presented a series of experiments to study the mechanisms and conditions of efficiency improving group activities. He studied a group of pupils and students, some of whom were really existing groups; some were made by experimentalists [1, 157]. The subjects were asked to perform a task by drawing geometric shapes, cut into smaller pieces and spread out into separate envelopes. Each subject was given one envelope. The group task was to collect quickly all the remaining figures.

The results of this experiment were the following conclusions:

- In solving relatively simple problems intergroup relations are not essential for a successful activity.
- In solving problems of high complexity or particularly difficult real groups are more efficient than diffuse ones.
- The type of a task presented in this experiment is quite interesting. Moreover, the number and the complexity of the shapes can be varied, which makes it possible to maneuver not only time-frames, but also certain situations and interactions in groups. However, to determine the appropriate level of this task difficulty requires a series of tests, which is not always possible.

Other variants of the joint research procedures are presented by A.S. Chernyshev and A.S. Krikunov. [2] The authors describe the devices-models of group activities

“Arch” and “Group Sensorimotor Integrator” with a “Stressor.” “Group Sensorimotor Integrator” is designed for the group task to 7 people. The task is to take a probe-writer through S-shaped maze as soon as possible during the competition. Touching the maze walls is an error. “Punishment” is a light electric shock or ekstero-irritants from “Stressors”, which punished only some members of the group or the entire group as a whole. [2]

In studies of EGEI (effective group emotional identification) integral stimulation (punishment of the whole group) was used at the first stage and partial (punishment of one of the members) at the second stage of the study. After collectives and diffuse groups were investigated. Each member of the group had the opportunity to rotate a handle. The problem could be successfully solved only by the coordinated work of all the handles [3; 79-80]. During the task the group had to choose either speed or psychological protection with minimal risk [2, 123]. “This fact was the basic premise for the future skill’s development level of emotional identification in the group” [3, 80]. This device allows for a relatively short period of time to reveal some aspects of the processes in the group and its members, which are not always detected with other instruments and techniques. Another advantage of the “Group Sensorimotor Integrator” is the ability to capture simultaneously time intervals and the number of errors made during the task.

“Arch”, a device for “coordinated practical action for groups from 2 to 20 people, was a collapsible structure in the form of an arch, consisting of individual elements, numbered in order and held together by a rim” [2, 124]. The authors note that the construction of the arch by one person is nearly impossible, since the structure is unstable. The fulfillment of this task, as in the previous experiments, was carried out on time.

### **Designing aspects for empirical studies of group activities**

Based on the mentioned work analysis, we are going to identify the aspects that open up new possibilities in the organizing of empirical researches.

1. Groups involved in the research, were formed by the experimenters themselves or were taken in the existing form for any research purposes. A characteristic feature of this research was that by studying the influence of various characteristics of groups and their members in the various displays of efficiency (the ability to learn, the occurrence of any dynamic aspects of group functioning), the moment of the formation of the group was not taken into account. We think that the moment of group formation (methods of selection) plays a key role in the successful functioning of the group in the future.

In our research groups were formed in two ways: the selection of the members of the working group “for yourself” (“for your own personality”), and the selection of the working group “for another” (“for another person”). [4] In the “selection “for yourself” leader of a team (a captain) was proposed to select from children, with whom, in the opinion of the captains, they could succeed by implementing gaming activities (see below), in competition with the other two groups. While selecting they used cyclic sequence of choice: at the beginning a first captain chooses his team,

then-a second, then-a third one. Then the cycle was repeated until all the members of the original group selection were not divided by individual teams.

In the “selection for another” captains were offered to pick up the members not for their own teams, but for another captain’s team: the first captain picked up the member for the second captain’s team, the second — for the third captain’s team, and the third — for the first one.

We should highlight the important points for our research:

— we have used the procedure of a not direct (authoritarian) way of group formation for the purposes of the study (when the experimenter himself forms the groups), but more indirect (indirect-democratic) one;

— we have applied such methods of group formation that are used by most of the managers in business, especially when they have the power to find the necessary people.

2. Predominantly, as the contents of joint activities, game, stimulation or modeling, rather than real-life activity was used. As a rule these activities are not similar to the professional activities that the subjects implement at their workplaces.

In our study, the freedom of studied group members has been significantly expanded, and it increased the measure of subjectivity of each group member. It essentially brought the fulfillment of specified tasks nearer to reality not so much in regard to the content of the performed activities but by the way of organizing procedures for group formation. In our study, the subject field of team members’ action was collecting of a puzzle. Although this activity relates to a game, nevertheless, in a number of parameters, it has some advantages. Selection of the puzzle was made by several reasons: a) its accessibility and ease of implementation, and b) the presence of similar color images, which make it possible to identify the different reference points, which, depending on the measure of awareness, the subjects could either consider or not consider in achieving the goal, c) the number of elements, which were set at a special pilot study.

3. In all cases, joint working efficiency was measured either by temporal aspect (speed of achieving the goal) or by quantitative parameters (the number of collected fragments) or by both of them together in the competition.

In addition in our research we have taken into consideration the opinions of the members about the team leader’s actions during the implementation of the intended target.

4. In the examined works the value spheres of a personality in the group processes are studied only in some cases (e.g., learning of the value-orientation of group unity, conducted under the direction of A.V. Petrovsky). Since the value-sense system is a multi-faceted system that is closely related to the categories of human motivation and behavior, the research activities in the group processes in the context of value-semantic sphere of a person can contribute to the disclosure of intrapersonal aspects connected with the categories of motivation and behavior at the level of group activities effects.

In our research we have presented modus orientation “to be” and “to have” allocated by E. Fromm as the underlying principles of the organization of the value-

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sense sphere of personality. "To be" means self-knowledge, self-fulfillment and productive activity, and "to have" suggests a consumer behavior model and a desire to turn everything in possession. [5]

**The aim** of our study was to investigate the group characteristics formed from subjects with modus orientations "to be" and "to have", implementing the strategy of selection "for their own individuality" and "for another personality."

**Hypotheses:** 1) groups formed "for their own individuality" are significantly more effective than the groups formed "for another individuality", and 2) the type of interaction between a captain and members of his group is caused by method of forming the group.

#### **Method**

We have developed methodological tools aimed at identifying the preferences by which we identified the dominant principles of life in each studied individual. After determining the dominant modus orientations ("to be" or "to have") in the subjects, they were asked to make a group selection in two ways. Some of them implemented a strategy of selection "for their own individuality," others used a strategy selection "for another identity." The groups were asked to collect the same picture puzzle during one time period.

The study involved 173 people of both sexes aged 19 to 38 (on the whole there were 23 groups).

On the basis of the strategy which a selection subject implemented by the group formation ("for himself" or "for another") and its modus orientation ("to be" and "to have"), we formed four blocks of groups:

- 1) groups, where the captains with the "to be" modus, implement selection "for themselves";
- 2) captains' teams with a focus on the principle "to be", who formed the group "for the others";
- 3) captains' teams with deep organizing principle of value-sense sphere of personality "to have" formed the inner circle "for their personalities";
- 4) captains' teams with the modus "to have" implemented the selection strategy "for another individuality".

Comparison of characteristics was made between the data of group blocks, more precisely, between the formed group compositions. Group composition of each team was the already counted total number of members with dominant specific characteristics, in this case, they were a way to interact team's captain with his members (support-resistance) and the time needed for the task (collection of a puzzle).

For experimental data processing we used statistical package SPSS 13.0, the criterion U-Mann-Whitney.

#### **Discussion of Results**

As it can be seen from the first line, the group formed "for another" (value 9.89) was significantly slower by puzzle collecting (significance level 0.04) than members of the group with the captains with the same principle ("to be"), selected "for their individuality" (value 5.17). This dependence may be due to the fact that members of

the group selected “for another individual,” in the team of the captain with the modus “to be” had a lack of motivation to complete the task. For example, the reluctance to participate actively in the puzzle collecting, because the captain team was not allowed to influence the selection by the specified rules of selection, that, of course, did not promote the growth of his authority. If we were to consider the question from this point of view, involving situational approach to the style of leadership and management, in terms of a probabilistic model by F. Fiedler for its interpretation, this would mean that the manager has a weak office power.

Table 1

Comparison of teams led by captains with different modus orientation

	Captains, forming a team for themselves n = 5	Captains of the teams formed by another leader n = 3	U-value of criterion	Significance level
Captains with modus orientation “to be” (15)	5.17	9.89	10.00	0.04
Captains with modus orientation “to have” (8)	3.30	6.50	1.50	0.05

Groups, led by captains with modus orientation “to have” and collected “for another individuality” (value 6.50) contained significantly more members, who felt that the captain had given them generally more resistance (significance level 0.05), compared with members of the team captains with the same modus, but formed “for his own personality” (value 3.30). The result can be explained by the fact that some features of modus orientation “to have”, such as consumerism and the need for power, may be perceived by members more sharply and be interpreted as a reaction, if they themselves have been identified in the command by another person (“for another personality”).

### Conclusions

1. The method of forming a group and principles of value-semantic sphere of an individual plays a significant role at the level of task effectiveness and the level of interaction between a formal leader and other members. It's important to note that not all levels of the value-sense sphere of a personality (mode of “to be” and “to have”) show significant differences in the points of the “efficiency” and “interaction.” Significant difference in efficacy was found in the dominant mode of captains “to be”, while the captains with the dominant principle “to have” have shown significant differences only in the category of interaction. This indicates that, on the one hand, some of the effects of group activities may have manifestations at different levels of the underlying principles of the organization personal value-semantic sphere, and on the other hand—you cannot exclude the possibility of directional modus orientations “to be” and “to have” on certain aspects of group activities.

2. The hypothesis that the groups formed “for their own personality,” are significantly more effective than the groups formed “for another personality,” was confirmed only for the group of captains with the dominant mode “to be” (see the

table). The hypothesis that the type of interaction between the captain and the members of his group is conditioned by the way of forming a group, was partly confirmed, because the significant differences in the interaction region were detected only in groups of captains with a dominant mode “to have” (see the table)

3. We demonstrated the importance of choosing the group formation strategy and took into account value-semantic sphere of an individual in the study of the interaction types and and effectiveness of the task. Since the principles “to be” and “to have” are quite voluminous categories, while selection strategy “for themselves” and “for the others” can be realized both in “natural” and in the “laboratory” conditions, the results obtained in the field of interaction types and the effectiveness of the task may be the basis for further research of group processes aspects.

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