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The quanting of the collective information space

The sociotics, being an information metabolism theory, is able to describe the psychoinformation spaces of the mentality of person, collective or ethnos by the models A or B [1]. The existence of the information metabolism discrete functions determines the necessity of the quanting of the described information space. Such quanting can be revealed by the social roles of some groups, selected in collective or society (as well as in state, ethnos or set of ethnoses, in human civilization in general).

From this point of view the detailed distribution of roles has to be correspondent to the sociotics model A.

Part I. Primitive group

Let us consider the so-called «primitive» human group, known in psychology [5]. This group includes a set of the strictly fixed functional groups and roles. It consists of: the subject «alpha» — *Leader*, the subject «beta» — *Authority*, whereas the others group members are divided by the subjects «gamma» — *Ruled* and the subjects «omega» — *Suppressed*.

Thus in the primitive group there are 4 kinds of roles. Let us consider how these kinds correspond to the model A structure.

The subject «alpha» has the right of the preferential appropriate of any welfares and shows the unpunished aggression. Usually he prevails the others by force, but his leading place is provided by the following qualities: comandness, rageness, ruthless and dominantness. These features determine his first place. He is clever and sly, he can plan and operate his group actions, he is able to detect his potential rivals and to put them out from the way or the collide them between one and other. The group members perceive him as the «bread-winner», «master» etc. It is easy to see that the *Leader* role can be compared with the one of the *first-programme*-function of the model A, which is the leading and dominating in the model an determines the basis of perception, world feelings and behaviour of the socionic type.

Let us consider now the role of **Authority** («beta»). This subject is the second person in the group. He is more clever that the *Leader* but he lose to him by courage, resolution etc. He is not able to be a *Leader* and thus he is not a danger for him. Contrary, the *Authority* consolidates the *Leader* power, he is glad of his successes and realizes his own ambitious plans and intentions by the *Leader* successes. The *Authority* is clear and rational in his decisions, but he has a sentimental feature, what is used by the *Leader* for the influence on the group by the creation of some primitive ideology, romantics etc. This role can be considered in correspondence to the *second* one — **realizing** — the model A function.

The subjects «omega» — *Suppressed*, which are the victims of the whole group aggression, can be compared with the most weak and vulnerable *fourth* — *mobilizating* — function of the model A, or the place of the less resistance.

The subjects «gamma» or the *Ruled*, are ranged by the degree of the approximation to the *Leader*

and *Authority* as by vertical so by horizontal in the group hierarchy structure. These subjects have the five functional roles, what provides to compare them with the 5 others subordinated functions of the model A. Let us consider them in detail.

The role of *Marionette* is a behaviour example in respect to the *Leader* and to the group aims, a kind of “model”, which can serve as a reproach for those, who is inclined to the group traditions. It is easy to see that this normalizing role corresponds to the *third — normalizing —* function of the model A and it can be considered as a primitive aspect of contact function, mask or *Person*.

The role of *Toady* or *Pleaser* is a role of flatterer and servant. It can be equaled to the primitive aspect of the *fifth — suggestive —* function of the model A (sometimes it is called the flattery function).

The *Approximate* takes in the group hierarchy the next place after the *Authority*. His weight is valuable. His role is compared with the *sixth — activation —* function of the model A. The role of the *dissatisfied* plays one or *ruled*, suppressed by the *Leader*, his presence is necessary for the *Leader* power demonstration. This role can be compared with the *seventh — controlling —* function of the model A. It is in opposition to the first function, what is socionically expressed in the contrary *versions*. The neuroses arise very often by this function (as well as by the *fourth* one). In particular, a group member from *Dissatisfied* can join the *suppressed* after a cruel punishment. Thus the comparison of this role with the *seventh* function is rather obvious.

We have to consider the last role, it is the role of *Jester*. The *Jester* may mock at the *Leader* approximates as well as at himself, what provides to regulate the emotional tension in group and to display the feelings of offence, disappointment, protest, which are accumulated by the group members. The real opponents of the *Leader* are revealed by the *Jester*. The *Leader* actively defends the *Jester* from the approximates rage. Thus the *Jester* plays a demonstration role, which completely corresponds to the *eighth — demonstration —* function of the model A. According to this function a person speaks resolutely and peremptory, discusses rather easy but is not able to act in real conditions. The role of *Jester* is just the same — assured, defended position under the absence of real actions, correspondent to declarations and statements.

Thus, the all eight functional role of the *primitive* group strictly correspond to the eight functions of model A, especially to their archaic, primitive aspect. Meanwhile such comparison reveals the model A significance, the more wide sphere of its usage. The classical *primitive* group and the laws of its functioning are based on the physical force. Namely the group hierarchy is supported mainly by the force method. From the socionics point of view it is a sensor model like to the archetype ●□ (SLE). If it is so, it has to exist the others similar groups, organized by other aspects, where the *business logics* (■), *ethics* etc. serve as the organizing principle. The group character can be covered by the social character or interactions. For example, in analogical group, formed by the ●□ (SEE) model, the □▲ (LII) has to play the role or *suppressed*. The author observed the formation of the science chemical-experimental group, in which the ●□ (SEE) type representative occurred to be the leader whereas the □▲ (LII) type was the research worker. In this situation after some months the SEE formed certain common situation, which made the LII to be *suppressed*. There were conversations about her abnormality, the hints and threats were spoken

about the psychiatrists invitation in order to transport the LII to the psychic hospital etc. The difference of this situation compared to the primitive group was just the following: all the events had place within the usual working level and the LII had the moral support by the colleagues of the others departments of the institute. At last the LII, having a strong character, succeeded to leave this collective without essential losses.

In other example in the ▲□ (ILE) occurred to be in analogous situation in the collective, where the □● (ESI) played the Leader role whereas the most of the collective members belonged to the quadra γ.

The third situation: the large organization director ▲■ (IEI) was within the representatives of the quadra β (●□ (SLE), □● (LSI)). The organization included some departments and the ■○ (LSE) type person was the leader of certain department (which mainly had the □▲ (EII) integral type). The LSE role in the main organization structure can be described in the *primitive* groups terms as the *suppressed*: he was limited in his rights and possibilities of the resources and technique usage. The others departments leaders were able to use the technique for the practical purposes whereas this leader has to «ask» the necessary technique in others departments. The discontent to the LSE and to his department was rising and at least he has directed to pension whereas his department was disbanded.

Such examples are the illustration of the fact that the intertype relations in society, as a rule, are unsymmetrical whereas the structure of this asymmetry is described by the hierarchy, analogous to the one, inherent to the functions of the psychoinformation models A and B. It has to be taken into account because the classic socionics describes only the «horizontal» equal in rights relations of partners and it sometimes gives a cause for its opponents to speak about the socionics disability under its application to the real systems and collectives. Really the similar objections are disable. The aspect-functional collective structure can be obvious or covered, rigid or soft, but the aspects values hierarchy exists always and can be revealed rather quickly and strictly, especially with the use of the socionic analysis.

Part II. The ruling group

There are the others evidences of the collectives psychoinformaton space quanting in the form of division by the functional roles. Such divisions are experimentally revealed by psychologists. For example, M. Belbin [1], whose work was acknowledged as one of the most essential in this branch, on the base of the several years investigations of the ruling groups selected and described the eight fixed roles in collective: *Chairman*, *Decisions marker*, *Novice with a fresh sight*, *Adviser (Judge)*, *Practice-manager*, *Scout of resources*, *Soul of group*, *Bringer*. Contrary to the *primitive* group this case refers to the human collective with developed consciousness, formed by cultural directions. Thus the comparison of this group with model A is also reasonable, the peculiarities of the different functions work in the model A will be taken into account more completely under such a comparison.

The *Chairman*, as a rule, determines the aims of the group and puts forward the tasks, points out the priority, aspires to use the resources by the best way etc. He has a strong character, he is self-disciplined, he is able to influence on people by his own charm, he does not abuse his power and does not force it. Under these conditions he rules the group, being its natural leader. This role can be equaled to the *first-program*-function of the model A in its developed, cultured, consciousness aspect.

The *Decisions maker* is a leader under the certain work producing, the certain problem solution. His main task is to make the form for the group work, for its activity results. He aspires to unite the all group directions, to integrate them. He keeps an eye on the all significant features in the group activity. The *Decisions maker* is pushing, energetic, he likes to act quickly, sometimes he quarrels with other members of the group, but he becomes cool quickly. This social role correlates with the role of the *second-creative*-function of the model A, which designation is the formation and structuring of information, coming from the *first-program*-function, as well as the creative synthesis and realizing.

The *Novice with a fresh sight* is a new person with an original, unbiased sight on the tasks, solved by the group. He proposes the new ideas, he interests in the new and fundamental problems. The *Novice* has rather nimble intellect, he is trustful, but he can criticize colleagues in order to have a possibility for his ideas proposition. Sometimes the *Novice* ideas do not correspond to the group tasks and lead it aside. Meanwhile such a person is rather necessary, his role can be compared with the *third contact* function, directed outside and actively collected the new information. Like to the new information, which changes the *third* function saturation, the *Novice* changes the group directions in respect to the solving problem.

The *Adviser (Judge)*. His role is in the objective analysis of the coming ideas and propositions. He does not propose the creative initiations but he prevents the collective form the «loss of the way», the wrong ideas passion etc. This role assumes the critical analysis of the current events. The *Adviser* effectively notices the shortcomings in ideas, plans etc., he can analyze, treat the large quantity of material and makes a mistake rather seldom. This role can be compared with the *seventh — controlling* — function of model A, by which a person can discuss excellently about that, what has to be done for this aspect, control and criticize the other people actions, make remarks, reveal mistakes.

The role of the *Practice-manager* consists in the organization of the practical realizing of the group tasks, the transformation of the adopted decisions and strategies into something practical. The *Practice-manager* is rational, successive, he likes to produce the working plans, schemes etc., sometimes he loses his head in unexpected situations and often he has not the necessary suppleness. Meanwhile he is able to change his plans by the regulating to the decisions, earlier adopted in the group. This role coincides with the one of the *eighth* function, which is not only demonstrative one but also the providing of the possibility for the systematic work.

The *Scout of resources* is the most nice person in group, he likes relations, takes an interest in everything, what happens around. He proposes for the group the new ideals, information, he has the various interests, including the ones beyond the group tasks, he provides the connection of the group with the world realities. In some sense his activity plays a role of the gate to world and thus the group is prevented of depression. Such a role is in a good correspondence to the model A *fifth* function, which is not only **suggestive**, but also including the aspire to the obtaining of various new information by this aspect and the credulous relation to this information.

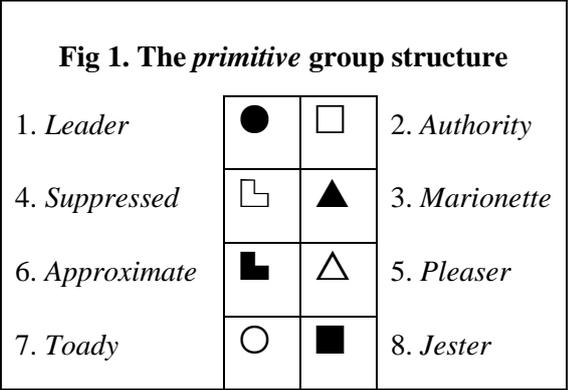
The *Soul of group* is the most tactful and sympathetic person in group, which is able to deal with the group members troubles and aspires to help everybody, if possible. He is able to listen everybody, to develop some idea till the realization, to soft emotional tension, to remove friction in group, to put out

conflict etc. This role can be compared with the *sixth*-activation (or *evaluation*) — the function model A, supporting the energy-information flows balance and playing the essential role for provision of the stable model functioning, the spirit health and the human psychic harmony. If the normal work of this function is destroyed the person feels an unclear languor, sometimes depression: he lacks something and does not understand what it is, he complains of his wrong condition etc.... The information support by correspondent aspect immediately balances the person, rises the total tonus, takes away many troubles, which were perceived as unsolved.

The *Bringer* usually has a trouble about everything, what can be done wrong and cannot calm down until he checks the results of the work. This person is very sensitive element of the group. If it is impossible to change the situation, the *Bringer* falls in depression. He aspires to the self-control; he dislikes the lax, the violation of discipline and promise etc. Meanwhile under the self-control loss he can transform into a stable whiner, which irritates everybody by his uncertainty and makes worse the total psychological climate in collective. It is easy to see that this role coincides with the role of the *fourth vulnerable* function of model A. This function is very sensitive because of its one-dimension, it has only the personal experience vector and treats only that information, which coincides with the own experience by this aspect. He is really the «bringer” among the model A functions.

Thus the all 8 social roles in group take their correspondence with the 8 model A functions. Such quanting of the group psychoinformation space can be generalized for the more wide collectives, but in this case it is necessary to use the more differentiated model B. **The considered connection provides the purposeful construction of the working groups taking into account the socionics regularities.**

We had shown earlier the correspondence of the *primitive* group roles and the model A functions. Under the roles comparison in *primitive* and *working* groups it can be seemed that these roles are weakly compared between them. Really, it is incorrect to compare these roles between them because they are the partial cases of the more general model, something like projections of the many-measures functions work within the information metabolism model [4], the projections, possessing the lower measure. The each information metabolism function has a complex structure and displays on the outside and inside levels of functioning [3, 5]. Besides each function is connected with the first and second signal systems. The *primitive* group works on the level, near to the first signal system, whereas the *working* one is on the second signal system level. Meanwhile the general quanting regularities remain the same. However from the socionics point of view there are the types models, where the both groups are rather near.



If a primitive group is based on the physical force, for its description it is possible to consider the model ●□ (SLE), which first function — ● — is the *will sensation*. Under this structure transformation into the *working* group, we note that the *Scout of resources* is the *Chairman* dual △■ (IEI) whereas the *Soul of group* is the *Chairman* activator ■△ (EIE). The *Novice with a fresh*

sight is in the *superego* relations with *Chairman* — $\blacktriangle\sqcup$ (IEE) (in the primitive group the *Marionette* corresponds to this role). The *Bringer* in such structure group is described by the type $\sqcup\blacktriangle$ (EII) (the *Suppressed* role in primitive group). The hierarchy of the *will sensation* function in the group, ruled by $\bullet\square$ (SLE), has the form, shown on the fig. 3. It is easy to see, that the model, consisted of the functions of the *will sensorics* types, including in the group, is the physical force hierarchy, semantically very near to the primitive group hierarchy. Just by this reason in the mafia structures, functioning as *primitive* groups, the leaders are like to the $\bullet\square$ (SLE) type.

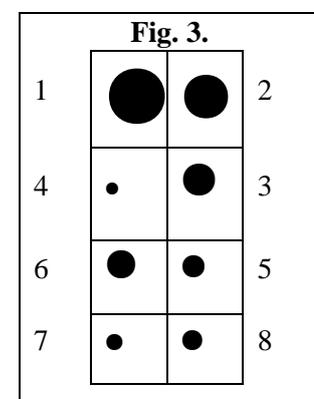
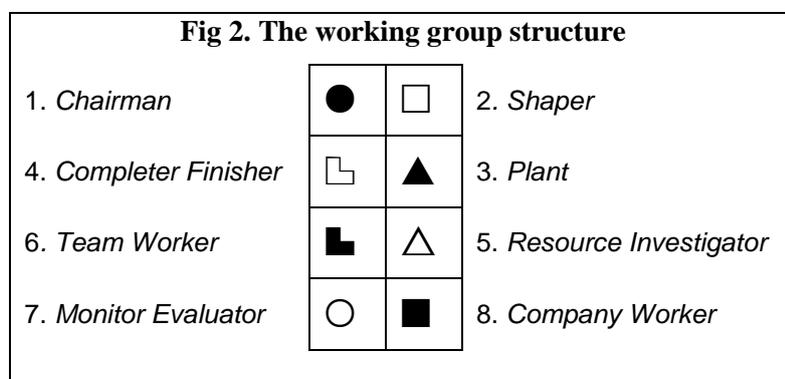
For effective management it is necessary to take into account the fact that namely the aspect structure of the group tasks determines the hierarchy of correspondent IM function of the group members. The coincidence of the aspect, structural and functional hierarchies in the group provides its high working ability and efficiency.

The ignorance of the psychoinformation space quanting caused the following situation: the some authors propositions in respect of the M. Belbin works usage in socionics reduces to the description of the display of the *sensor-logical* or *sensor-ethical extraverted* type as a leader. Really the similar group can reflect the structure of **any type** of the information metabolism (IM), if its leader belongs to the same type and in this group the coordination has place in respect to the psychological and information peculiarities, presented by certain configurations of the IM functions vectors [4].

The obtained regularities provide to construct the any type collectives for certain task.

The arisement of similar functional structures in psychoinformation space can be described in terms of *synergetics* like to the functional differentiation of the cell groups in the developing organism as well as the structuring of the information metabolism functions in the human psychics formation.

Under the produced consideration it is ascertained the coordination between the functional roles distribution in group and the model A structure. Meanwhile the groups and collectives, possessing the more complex structure, need for their description the usage of the more differentiated and complex model B [3].



Thus it is discovered and described the quanting phenomenon of the collective psychoinformation space and it is proposed the universal algorithm for the analysis of structure and the working groups formation for the certain put problem.

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