TO THE QUESTION OF SCIENTIFIC AND ENGINEERING COMMUNITY

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Any phenomenon in science can be adequately interpreted only in the three "dimensions" system. In relation to the concept of scientific and engineering community, this means that its content is revealed only when the socio-psychological aspect of scientific activity is related to the subject-logical and personal.

Association of individuals into a scientific community has not only social, but also categorical basis. At the same time it involves the coordination of personal attitudes of each member of this team. With the inclusion into the group activities of "intrinsic motivation" becomes one of the components of a "collective motivation" [1, p.25]. But the relation of an individual to the accepted norms in this team, prohibitions, requirements, conflicts (we call this ratio ***psychosocial***) expresses his own life view-point and it doesn’t bring to simple reproduction of group standards. Although the individuals’ activities in scientific society are determined by its structure, it is inherent in personal-unique style, which is an imprint on intellectual and moral character of the group. The dependence school on the personality of the school "teacher", i.e. the person performing the leadership functions is well known. In scientific consciousness informal and formal staff is constantly associated with the image of its leader. It’s hard to imagine Liebig's school or schools of Pavlov, Wundt or Bor without regard to personal characteristics of these scientists. The biography of a community often coincides with the biography of a leader. The scientific community will cease to exist with his departure. In his presidential address at the XVII International Congress of Psychology E. Boring predicted that in the future history of science would be anonymous, that it will get rid of the "cult of personality", of the concept, which

relates the progress of knowledge due to special unique qualities of "great men" [2].

In scientific activities there are informal elements that are absorbed only in direct contact with those, who conducts scientific research himself. They cannot be carved out of the process of scientific knowledge verbally, as they are not recognized, not only by the others, but also by the researcher. This kind of training to "personal knowledge" as a source of creative ideas is the most important function of the dyad "teacher-student". In this sense, the community remains an important socio- psychological factor of scientific progress. Any researcher passes school in direct communication with a personalized historic relay transmitter, which core is the logic of science development (due to idealized abstraction, it appears in the form of universal invariants of categorical order). In the real historical process, this logic is refracted through the specific features of the development of this country, this nation. Here the different areas of knowledge can be folded evenly, and within this region there occur directions acquiring national identity. For example, in the XIX c. the differences are revealed in the development of physiology in Germany, France and Russia. These differences give ground to speak on relevant national scientific and engineering communities. In particular applied to them, such distinctive features as direct communication between individuals, their joint activities, awareness of belonging to a community, as opposed to teaching and research, are not constitutive. Objectively, it does not depend on whether the researcher treats himself a spokesman of general guidelines and trends inherent to the national scientific community or not.

The concept of ***national scientific and engineering community*** needs historical specification in identifying the circumstances that caused the originality of his contribution to the overall development of this field of knowledge. The question of what researchers exactly and for what reasons becomes more vivid and typical representatives of national tradition are subjected to careful analyses.

Traditional patterns of engineering culture, based on the natural and technical sciences, and aimed at building local technical devices that meet the

requirements of efficiency, quality, reliability, efficiency, etc., are not sufficient today. World experience shows that they should be supplemented by social and cultural components [3, p.101-197]. A way from system-engineering design has already started to socio-technical project activities in which the technique is subordinate to the interests of people and preservation of natural objects and processes. Such quality of engineering activities is defined by social competence of a specialist, which primarily manifests itself in the ability to identify and assess the consequences of technical impacts on society and nature.

Literature

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