Gender synchronistic functional between-level structures of integral individuality of agricultural-industrial college students

During the latest decades in Russian psychology we more often find systematic methodological, theoretical, empirical and experimental research devoted to the studies of not just separate ingredients of human individuality (either of personality or of psychodynamics and others), but of human individuality as an integral system. While doing so methodologically researchers are guided by different variants of systematic approach (B.G. Ananyev, V.S. Merlin, B.F. Lomov, V.M. Rusalov, V.V. Belous, A.I. Shchebetenko etc.).

Nevertheless, in spite of the topicality of such research work, it should be mentioned that due to the difficulty of the subject of this research, their number is still insufficient. From this follows the problem of the suggested research which can be stated in the form of the question: do the peculiarities of the characteristics of gender synchronistic functional between-level structures of students’ integral individuality (understood as in Shchebetenko, 2001) – future employees of agro-industrial complex (internal conditions) – influence the formation of their preparedness for the future professional activity? The aim of the research: to reveal the developmental characteristics of gender synchronistic functional between-level structures of integral individuality of agrochemical faculty students – the future employees of the agro-industrial complex under the conditions of their professional preparation during the 1st and 2nd years of studies in an agricultural college. The task of the research: using the experimental data of male and female subjects’ groups, formed from students of the agrochemical faculty of the Perm state agricultural academy, to reveal the developmental characteristics of the synchronistic functional between-level structures of their integral individuality. The hypotheses of the research: success in studies and professional activity of agrochemical students during the first two years of studies in the higher educational institution considerably and specifically depends on their integral individuality synchronistic functional between-level structures. In other words: “male” synchronistic functional between-level structures and the like “female” between-level structures of students’ integral individuality should have considerable differences in their composition. Such differences represent an essential condition for the formation of their preparedness for the future activity in the agro-industrial complex (internal conditions for a person’s activity).

The research was carried out in February-March 2005 (the background diagnostic shearing; 2nd semester of studies) and in February-March 2006 (the final diagnostic shearing; 4th semester of studies). The subjects – students of the agrochemical faculty of the academician D.N. Pryanyshnikov Perm state agricultural academy, 100 in number. Their age: from 17 up to 20 years old at the beginning of the research and from
18 up to 21 by the completion of the research. Among them: 50 male students and 50 female students. The work included the following characteristics of different levels of integral individuality: strength of the stimulation process, the nervous system sensitivity, strength of the inhibition process, unbalanced character of nervous processes (according to the inquirer of the structure of the integral individuality neurodynamic level by A.I. Shchebetenko) [3] – the level of neurodynamic characteristics; sensitivity, emotional stimulation, anxiety, activity, reactivity, correlation of activity and reactivity, resistance, psychodynamic sociability, rigidity (according to the inquirer of the structure of the integral individuality psychodynamic level by A.I. Shchebetenko) [3] – the level of psychodynamic characteristics; attitude to studies – mark, attitude to studies – time, attitude to studies – strength (according to the method of semantic differential by C. Osgood) [4]; assertiveness (according to the Levinson inquirer “Am I assertive?”) [1] – the level of the personality characteristics of integral individuality. As exponents of success in studies and professional activity were used normal marks (with the one hundredth precision), got by the subjects at the semester examinations: separately – in professionally oriented subjects and separately – in general educational subjects. For statistical procession the factor analysis method was used (the method of the main components with the “vary-max rotation”).

It has turned out that in the background diagnostic shearing the exponents of success in studies (both in male and female groups) have been included together with significant factor influences only in one and the same significant factor (without the exponents of different level characteristics of integral individuality of male and female students). It can be explained as the factor of “success in studies and professional activity, not influenced upon by students’ individuality”. Thus, the first factor revealed is that success in studies (the 2nd semester of studies) both with male and female students depends neither on their neurodynamic characters, nor on the psychodynamic characters, nor on the personality levels of their integral individuality. In the final diagnostic shearing (the 4th semester of studies) it has been found that with male students exponents of success in studies have created one and the same significant factor which has, at the same time, included with a significant factor value an exponent of one of the characteristics of a personality characteristics level – attitude to studies (according to the methods “Semantic differential” – “time”). This factor can be indicated as the factor “success in studies and professional activity, determined by a personality level of integral individuality” (the male group). Together with this the capacity of the subsystem adaptive level is proved by the factor values and quantities of characteristics exponents of this or that hierarchical level, included in one and the same significant factor with the exponent of success in studies and professional activity. It can easily be seen that the second factor revealed proves the fact that success in studies and professional activity of male students in the 4th semester of their studies in the higher educational institution depends more not on their genotype (individual characteristics of neurodynamic and psychodynamic levels), but on their phenotype (attitude to studies, i.e. characteristics of a personality level of their integral individual-
ity). In the female group the exponents of success in studies and professional activity in the 4th semester of studies (the final diagnostic shearing) have also created one and the same significant factor, but already with another exponent of a personality characteristics level – the exponent of assertiveness. This factor can be indicated as the “success in studies and professional activity, determined by characteristics of a personality level” factor, but this time – by other personality characteristics as compared to the male group. Consequently, in spite of the fact that success in studies and professional activity of male and female students in the 4th semester of studies (the final diagnostic shearing) is under the dominating influence of the personality level of integral individuality, as compared with the characteristics of its other hierarchical levels, nevertheless such gender between-level structures of students' integral individuality have significant differences. How can we explain the obtained results?

The analysis of scientific data shows that their explanation can lie in the specific character of study and professional activity demands to the active adaptation of between-level synchronistic functional structures of integral individuality of students, being in specific conditions of studying and getting education (depending on the type of different higher educational institutions and faculties). Thus it is proved that the exponents of success in studies and professional activity both of male and female students of the agrochemical faculty in the 2nd semester of studies do not have any statistically significant correlations with the exponents of the characteristics of their integral individuality different hierarchical levels. At the same time it is found out, that in the 4th semester of studies such, different on the gender basis, statistic correlations are revealed. This fact corroborates our hypothesis that gender functional between-level integral individuality structures represent a significant factor in the formation of future professionals – employees in the agro-industrial complex (the internal conditions of a person's activity).

The Literature