

THE USE OF THE CORRELATION ANALYSIS FOR STUDYING ANTHROPOLOGICAL TYPES OF RUSSIA

V.K. Abramov

FSBEI HPE "Mordovia State University", Saransk, the Republic of Mordovia (430000, Saransk, Bolshevistskaya street, 68.), E - mail: abramovvk @ mail. ru

A variety of anthropological types of the Russians and numeric data about them [6,7 et al.], allow using many quantitative methods [1] tested by the author [2,3,4,5 and others]. In particular, good results for determining the degree of similarity of different types have been provided through studying correlations with the use of 7 anthropometric indexes (a person's height, head breadth and head length, the smallest forehead width, morphological and physiognomic facial height, mandibular and zygomatic diameters) and 3 antroposcopic indexes (beard growth, percentage of blond people and people with light coloured eyes). For example, to find the correlation with the Mordovian - Moksha group [6, pp 154-165], we have used the data of the analysis of the Russian groups: Don-Surskaya, Ilmenskaya, Verhneokskaya, Verkhnevolzhskaya - Severovostochnaya, Srednevolzhskaya - Stepnaya [7, pp. 307-312]. These groups consisted of 12 subgroups; each subgroup included 70-100 persons who were examined in the second half of 1950s. In 1940 s-1950s, another 12 subgroups of the Don-Surskaya area were examined by different scientists [7, pp. 285-289]. In calculating the linear correlation coefficient, maximum similarity ($r = 0,94$) was determined between Moksha-Mordvinians and mixed with them Russians from the Don-Surskaya group, then in the Russians of Don-Surskaya and Srednevolzhskaya-Stepnaya groups that was caused by the neighbourhood. The most significant variances are between the data of Moksha-Mordvinians and the data of the geographically remote Verkhneokskie and Verkhnevolzhskie-Severovostochnye Russians. The similarity between the two groups from the Don-Surskaya area ($r = 0,74$) examined by different expeditions has indicated the effect of E.M. Chepurkovsky. The matrix also reflected the diversity of the Russian people. Thus, the correlation matrices can be used to evaluate the degree of similarity of different population groups and their intermixing.

Bibliography

1. Abramov V.K. Quantitative methods in anthropological research. - Saransk, 2014. – 172 p.
2. Abramov V.K. Quantitative analysis in historical research. - Saransk, 1996. – 248 p.
3. Abramov V.K. Correlation analysis in historical research. - Saransk, 1990. – 92 p.
4. Abramov VK Mathematical methods in historical research. - Saransk, 1988. – 82 p.
5. Abramov VK Multivariate statistic analysis in historical research. - Saransk:, 2011. – 68 p.
6. Mark K.Yu. Ethnic anthropology of the Mordovians // Questions of ethnic history of the Mordovian people. – M., 1960. – Pp. 154-165.
7. The origin and the ethnic history of the Russian people. – M., 1965. – 415 p.