PROBLEM OF APPLICATION AND EXPLANATION OF NEUROPSYCHOLOGICAL TESTS TO IDENTIFY FUNCTIONAL BRAIN ASYMMETRY

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The functional brain asymmetry diagnostics is of significant importance for both clinical study and neuropsychology of norm. A.R. Luriya (1962) noted that latent left-handedness plays an important role for localization diagnosis of symptoms. Tests for partial left-handedness identification offered by him are now used in neuropsychological research. Works by V.L. Anzmirov, T.A. Karasev, G.L. Kornynsky, and E.G. Simenetskaya (1967) demonstrated that such tests do not always produce results correlating with J. Wada test. Further practice of evaluation of partial left-handedness diagnostics criteria enables the creation of neuropsychological typology of individual differences (Moskvin, 1986, 1987, 1990; Khomskaya, Efimova, 1989) and research of connection between lateral organization profile and psychological properties (Khomskaya, Efimova, Budya-k, Eniko-lopo, 1997, 2011). Our study involving 87 healthy and grown-up test persons aging from 16 to 24 didn't show any correlation between the results of the following tests: "Interlacing of fingers", “Applause”, “Napoleon-like pose” There was a link between the results of A.P. Chuprikov checklist and test “Applause” (R=0.36, p=0.001), “Napoleon-like pose” (R=0.22, p<0.05) and visual test “Aiming” (R=0.24, p<0.05). However there were no links between the results of Rosenbach test and “Aiming”. Dichotic listening deserves special attention. It was found that 52% of test persons demonstrate the change of the right ear index to the opposite one in the second series (once the headphones are switched). This may well be connected with identical words presentation in two series, with actualization of recognition and with individual characteristics of interhemispheric interaction. The results obtained make us reconsider existing approaches to identify asymmetry. One suggests as a possible solution that the results of tests should be studied separately (Moskvin, Moskvina, 2011) or be combined considering factor loading (Khokhlov, 2012b).