HORIZONS OF NEUROREHABILITATION: PURPOSEFUL MOVEMENT AS GENERATION OF MEANING

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In neurorehabilitation and motor function recovery, Vygotsky-Luria’s line and Leontiev-Zaporozhets’ line are obviously connected, but their connection has not been articulated enough. Their point of convergence dates back to the publication of two collections of papers: “Movement and activity,” edited by Sergei Rubinshtein (1945), and “Psychology,” a tribute to the head of the Georgian school of the psychology of set theory of Dmitry Uznadze (1945). Since then, the development of the two lines has been largely parallel. The missing link is Nikolay Bernshtein’s non-classical physiology of activity. Both lines are based on his predictive explanatory framework with the central role of task in movement construction, which, in turn, sets the hierarchy of levels where backward reference (“sensory corrections”) takes place. Just as Luria considered “speech afferentation” a way of rehabilitation at the level of meanings (not just actions), Zaporozhets treated motor acts as meaning-dependent (inner) movements and thus implementations of meanings. Current neurorehabilitation disregards the Bernsteinian idea of the central role of values and meanings in the recovery of movements, which opposes neurorehabilitation as training to neurorehabilitation as guidance, the latter relevant to Leontiev’s “personal meaning” problem. Neurorehabilitation as guidance is “meaning generation,” hierarchical when one of the background levels of motion construction is affected, and heterarchical when it is a leading level. And the core function of this system should be recreated.