

Visuo-spatial pseudohemineglect in professional sportsmen

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Abstract Repetition behavior such that involved in some professional circumstances (e.g., sport or musical training) seems to generate consistent and relatively typical changes, as a consequence of cerebral plasticity. We comparatively examined, independently for each hand, the performances in a line bisection task of three equivalent (in respect to relevant demographic parameters) groups of male subjects, all right-handed: professional sportsmen in branches requiring eye–hand coordination (n = 27), students in sports and physical education who practice the same sport disciplines but not at professional level (n = 28), and students in other

faculties in which physical education is optional into the curriculum (n = 29). Using the right hand, the sportsmen show a clear left pseudohemineglect, compared with the subjects of the control groups. Using the left hand all groups of subjects seem to present a right pseudohemineglect, which is significantly more reduced in sportsmen. The results are explained in the frame of the “Group Cortical Organisation and Activation Theory”.

Keywords Pseudohemineglect • Eye-hand coordination training

