

生態学的自己の発達と障害に関する研究*

— 光学的流動によって惹起される身体動揺に及ぼす不安定な台と動作法の影響 —

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The Study on the Organization and Disorganization of the Ecological Self:

The Effects of “Balance-Board” and *Dohsa-hou* on Body Sway induced by Optical Flow

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The purpose of this study was twofold: the effect of optical flow on body sway in dynamic and static situations (Experiment 1) and the effect of optical flow on body sway in a dynamic situation after *Dohsa-hou* training (Experiment 2). Body sway was measured using a High-reso Mat sensory system in order to calculate the subject's centre of load in correlation to their body-sway. In Experiment 1, twenty-one subjects were divided into a Dynamic (on a balance-board) and a Static (on the floor) group. After control readings had been taken, both groups were instructed to watch a pattern of moving dots (optical flow). The results indicated that the optical stimulus affected the body sway of both groups. However there was no difference in the subject's own evaluation of their body sway. In Experiment 2, after five trials on the balance-board, nine subjects in the *Dohsa* group received *Dohsa-hou Fumishime* training. After training, although there was a measurable increase in their controllable area, there was no significant difference between the body sway and the subject's own evaluation in either the *Dohsa* group or the control group. However the results suggest an organization process that integrated some sensory information with the changing situation.

Key words : body sway, induced movement, optical flow, *Dohsa-hou*, organization