Learning and relearning of a visual avoidance response after neocortical lesions in rats

Cogan-Schilkrut, Rebeca

Pinto-Hamuy, Teresa

Saavedra, Maria A.

The learning, retention and relearning of an instrumental visual avoidance response was studied in 98 rats, including normal rats and those with frontal, somatic, visual and auditory ablations. Significant differences were found in the postoperative learning of the damaged groups. Visual and frontal groups were the most impaired, therefore the principle of equipotentiality does not hold for cortical functions in this task. Lesions affected relearning less severely than learning. The hypothesis that previous experience would mainly influence the performance of those animals with ablations in the neocortical areas critical for the acquisition of the habit was supported. The effects produced by visual neocortex damage could be attributed to disturbances in the relaying of visual information to the superior colliculus which seems to be the center for visuomotor performance. No conclusion is reached concerning causes of frontal deficit. © 1970.