

Mechanisms of learning and attention in the auditory system of the barn owl

Eric I. Knudsen

Stanford University School of Medicine

One of the most fascinating properties of the brain is its ability to learn: its ability to alter its functional properties as a consequence of the interactions of an animal with the environment. The influence of experience on the brain is strong especially during early life and is modulated throughout life by the internal state of the animal. Attention, in particular, has a powerful modulating effect on learning. I will discuss a well-studied example of these principles: The effects of experience and attention on sound localization and auditory spatial processing in the barn owl.