

Better understanding of cognitive functions and their underlying neural substrate requires appropriate behavioral testing methods. Studying spatial cognition of rat has taken advantage from plethora of tests examining spatial capabilities in stationary environments. However, an animal obviously daily faces situations in which it must response to ever changing elements in its environment. Thus this thesis was aimed to contribute to understanding how an animal represent these non-stationary environments and to elucidating of the role of some brain structures such as posterior parietal cortex or hippocampus.