

## Abstract View

## DOES MONOCULAR BLOCKAGE AFFECT THE EGOCENTER OF HIPPOCAMPAL PLACE FIELDS?

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The exact location and shape of a hippocampal place field depends on which point is chosen to represent the location of the animal in the horizontal plane. By recovering the position and 3-D orientation of the head of a freely moving rat from video tracking images, we showed previously that there was always a unique center for each place cell, called the egocenter, that yielded the most compact place field (Society for Neuroscience Abstracts 27:643.19, 2001). The aim of the present study is to examine how the egocenter might be affected by the visual inputs when one eye of the rat is covered by an opaque pad. We reasoned that if the location of an egocenter is computed based on the location of the opened eye with respect to the environment, then covering the left eye vs. the right eye should shift the egocenter as well as the place field in a predictable manner. We have improved the video tracking system and collected data from one animal with either the left eye or the right eye covered in addition to control trials with both eyes open, in a random foraging task guided by visual signal and rewarded by medial forebrain bundle stimulation. We are analyzing the data and will present the results.

Supported by: Howard Hughes Medical Institute & NS20331

## Citation:

K. Zhang, M.R. Bower, B.L. McNaughton, T.J. Sejnowski. DOES MONOCULAR BLOCKAGE AFFECT THE EGOCENTER OF HIPPOCAMPAL PLACE FIELDS? Program No. 678.14. 2002 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience, 2002. Online.



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