

## *Grid cells get back to the memory game*

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**Abstract:** After the contrasting spatial and memory narratives which have dominated hippocampal research were reconciled by the discovery of grid cells in entorhinal cortex, these cells have been regarded as a rigid system, essentially memory-less and almost frozen, following their developmental maturation. Recent data suggest, however, that such rigidity may be an artifact of experimental studies carried out in standard laboratory conditions. For grid cells to represent spatial position in ecological conditions, they appear to require memory of familiar environments. I will discuss how the grid cell network may attain sufficient storage capacity, despite the lack, in contrast to the hippocampus, of dentate gyrus preprocessing.