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Memory 2 (Paradiso) List the two major types of learning and memory as we covered in class. What is each type responsible for? Name and describe the test used to assess working memory in nonhuman primates. Name and describe one test used to assess working memory in humans.	

Describe the radial arm maze used for rats. What happens to a rat's performance with a lesioned hippocampus?	
Describe place cells in the hippocampus and grid cells in the entorhinal cortex. - What types of information does each encode?	
Define the two types of amnesia. Which types of memories are kept and lost in each? - Are older memories more or less likely to be forgotten?	
What lobe was removed in patient H.M.? What type of deficit resulted?	

Addiction (Kauer) Addiction is a disorder of what? Is it a disorder of wanting or liking? Why are addictive drugs not like Fritos? What's the difference between something that's reinforcing and something that's rewarding? What long-term effects do drugs of abuse have? Describe the major pathway that was covered in relation to addiction. - Which neurotransmitter is involved? - What is each brain area responsible for? - What do addictive drugs have in common in terms of this pathway? - What can you do to this pathway to stop addictive behavior, at least in rodents? What do drugs of abuse do the in VTA? How is this measured?	

What types of receptors are inserted during cocaine withdrawal in the study that we discussed? - What drug can block these receptors?	

Brain Plasticity (Linden)

The year 2014 was the second time that cortical plasticity was covered in NEUR 0010. As a result, because I can't completely predict what questions the professors will ask, I have made a list of general questions that you should be able to answer. If you have any trouble, please feel free to email me.

Note: Because the textbook has been significantly revised after I was a teaching assistant, it is not guaranteed that Dr. Linden will lecture using the same slides as before. Therefore, these questions might not be relevant to the actual lecture.

1. Give two examples of experiments that demonstrated ocular dominance plasticity. Include what was done to the animal in the experiment, what was measured, and how that measurement changed from before to after.

2. Is it true that a glutamatergic synapse that has zero activity will demonstrate LTD? If not, why not? What is needed for LTD to occur, then?

3. What are the two neurotransmitters in the basal forebrain that are thought to be important for maintaining cortical plasticity?

4. Define critical period. Why are they important, and why must they end? Give a few examples of a critical period in humans or other animals.

5. Be able to explain the *basic concept* of all of the graphs and diagrams in the slides in one or two sentences. If you're having trouble, email me.