

	Question1
1	Leal: do you think that it is mood disorders causing the network change or a change in the network which is causing mood disorders; could this be a negative feedback loop?
2	Clewett et al. (2020): if we now know that arousal can be a feature of internal contextual state and therefore impacts how information is binded together, could we use this to modulate our state of arousal in the context studying to therefore remember/learn things more efficiently?
3	Clewett et al.: What, if there are several events on the same time who influence each other? How do the event boundaries look like and how does it affect the memory?
4	(Leal et. al., 2014)What could be the compensatory mechanism that can potentially regulate the aberrant activity of amygdala-hippocampal network connectivity in depressive patients?
5	In Clewett et al (2020) Is pupil dilation actually a good test to use to detect arousability? Can you give any other tests you could use instead?
6	In Leal et al.(2014), they mention the limit concerning the mechanism underlying the process of emotional information by one region preferentially. Would you have some hypotheses on this mechanism ? (From different theories of emotion for example)
7	Leal et al: In the discussion of this paper they say that "Emotional processing of positive stimuli is an important facet in the modulation of memory that, if better understood, may be helpful in reversing the negativity bias found in patient populations with mood disorders." But due to limitations in the study they did not really look at positive stimuli. How could one go about conducting a study to investigate this aspect? Because if we could truly reverse the negativity bias, it would be a huge thing for patients with mood disorders.
8	Clewett et al., 2020: Our pupiles contracted in response to light, so maybe when a photo is presented more light comes to the pupile and it contracts. Have the authors controlled for this fact or did they take this into account in some way?
9	Clewett et al., (2020): Is there any other component analysis beside PCA to be performed for preprocessing pupil data? How to choose between them?
10	How come the amygdala-hippocampal network activity is aberrant in L. Leal (2014) ?
11	I recently learned that mediation and moderation are different and are also statistically analyzed differently. Knowing this, could you please elaborate on the phrase in Leal et al (2014): Emotional arousal, mediated by the amygdala, is known to modulate episodic memories stored by the hippocampus, a region involved in pattern separation (the process by which similar representations are independently stored). ?
12	Leal et al. (2014) Does the effect of pattern searaation found in DG/CA3 can be found with positive stimuli?
13	In Leal et al. (2014) study, what is a possible explanation to depressive people having a lower DG/CA3 activity ? On top of that, the more severe the symptoms were, the lower the DG/CA3 activity is, why ?
14	Clewett: What is the loading in PCA analysis?
15	Leal: could this mechanism be targeted to reverse the emotional valence of memories encoded by people with depression, helping to aid their recovery?
16	Clewett et al. (2020): why is temporal distancing between memories so important? and how does early peaking pupil dilation during event distancing reflect this importance?
17	Clewett et al.: How can we be sure that the memory enhancement is due to event boundaries and not just the arousal, that enhances the recollection?
18	(Leal et. al., 2014). What could be other sensory region that can potentially involve event segmentation as like visual cortex? Why and why not?
19	In Clewett et al (2020) how did they perform the eye tracking experiments?
20	If the amygdala's involvement in emotional modulation is independent of memory performance, could we conclude that the link between amygdala and hippocampus is unidirectional (from amygdala to hippocampus only) ?
21	Clewett et al: In this paper the link between memory and pupil responses are evident. I would really like to know why these two are linked. Evolutionary speaking why would there a link exist, what is the benefit?
22	Clewett et al., 2020: I think I have understood that neuromodulation has a very important role on context stability, why it is that? What role have the neuromodulators Ach and NE related to memory?
23	Leal et al. (2014): What do they mean by "the similarity of inputs to the system"?
24	How the understanding of pattern separation of emotional Information is important to a better understanding how the memory work link with emotion ? (L. Leal, 2014)
25	Fluoxetine (an SSRI), has been shown to enhance neurogenesis in the adult hippocampus. With that in mind, do you think the Leal et al (2014) study would look different regarding CA3/DG if they also tested depressive participants taking fluoxetine?
26	Clewett et al. (2020) Does psychotropic drugs thant induces pupil dilatation, also induces emotions related to the size of the pupil dilatation?
27	In Leal et al. (2014) sutdy, the underlying mechanism on how emotional information is processed preferentially by one region vs another is still unknown. If there was a way to test this, what would be the procedure and methodolgy ?
28	Leal: How to fight the bias for positive emotions in this article and in affective litterature in general?
29	Clewett: could a pharmacologically induced arousal be used as a memory enhancer when you want to learn something?
30	Leal et al. (2014): How/why did this study group together the areas DG and CA3? and what was the importance of studying these areas in the context of processing emotional information?
31	Leal et al.: Using a much bigger sample size, how could gender differences look like?
32	NA
33	In Leal et al (2014) do you think the sample sizes they used are actually reasonable? with NDS having 18 patients (half male and half female) while in DS it was only 10 patients with a ration of 3:7).
34	In Clewett (2020), they conclude that auditory event boundaries elicited greater subjective separation in memory. I wondered whether this effect could be explained by a multi sensory process integration ? It was not clear for me whether memory was influenced by auditory events or the whole sensory integration was linked to memory boundaries ?
35	Clewett et al: In this paper they mention that these findings have implications for improving learning in both educational and everyday settings. Could you show us an example of how you would use this knowledge to teach us something and improve our learning?

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36	Leal et al., 2012: In people with depressive symptoms there is less hippocampal activity on negative vs neutral lure discrimination; comparing to NDS. At first view, it looks like it would be more logical to think that in DS people there is a worse perception of reality and maybe they would be more reactive to negative stimuli. What do you think about that? Is there any explanation?
37	Leal et al. (2014): Beside emotion, what modulates amygdala activity?
38	Whar is the link between neurocomputational operations and dilation pupil ?
39	Could you please explain the reason and relevance of using a principal component analysis in a study like Clewett et al's (2020)?
40	Both articles question : Does overall luminosity was regulated for all the stimuli used in these experiments?
41	In Clewett et al. (2020), why were participants significantly slower to make indoor/outdoor judgements for items that appeared immediately after the tone switch (boundary effect) compared to same-context items ? Could this be explained by a higher cognitive load the switching (motor and auditory) results in ?
42	Leal : is there another disease that can give information to better understand this pattern ?