**Essay #3**

For this essay, you will read a **meta-analysis** of brain correlates of one or several disorder(s).

In a meta-analysis, the authors collect different studies that looked for brain correlates of a disorder, extract, and pool the results (as far as possible), and run a statistical analysis to find out which results were consistent across individual studies. The motivation behind meta-analyses is that different studies often report different findings, but if a result is reported in multiple studies, then it is more likely to be “true”.

Under the link below, you will find several papers which perform a meta-analysis of neuroimaging studies aiming to identify brain regions that are affected by one or several disorder(s).

**The essay should cover roughly:**

* What kind of neuroimaging studies (which recording method(s), which study paradigms) were included in the meta-analysis? What were exclusion criteria?
* If the study covered several disorders, why were these combined?
* What were demographics and characteristics of the study populations?
* What was the basic principle behind the meta-analysis technique? (doesn’t have to be detailed)
* What were the main findings? Which regions / connections were found to be relevant? What are the functions of the affected regions, and how are the alterations assumed to underlie symptoms?
* If findings are inconsistent, what are possible reasons mentioned?
* Besides neural correlates, was there a discussion of risk factors (genetic, external, lifestyle)?
* Are there any suggestions for future studies?
* Are there any suggestions for clinical practice?
* Are there any comparisons with other reviews or meta-analyses?

Again, the **length should be 2-3 pages**. You can divide the text into sections in a way that makes sense to you. These articles may be challenging to read, but you don’t have to understand and summarize all the technical and physiological details. Especially in longer articles, the Discussion section is probably easier to parse for main findings than the Results section.

You can of course look up individual terms or regions in Google or Wikipedia if you want to better understand them and they are not explained sufficiently in the article. Also, you can try to check lecture slides or textbooks.

**Try to put the results in your own words, how you yourself understand them**.

This time, you don’t have to reference the individual studies that were analyzed, but you can reference other review or meta-analysis papers or other sources that you used.

Link: <https://drive.google.com/drive/folders/16cHFFx_dnuV_THO7rkVJeV79_KGIEtl1>