

VEV731 - Class 3

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Class Summary: Understanding Happiness

In this class, I learned how different brain networks shape our emotions and overall well-being. I got to know what the **executive center** is, and how it guides attention, impulse control, and decision making. We peeled through deeper layers of thinking like an onion, uncovering how various networks interact to shape behavior and emotion. We also explored neuroscientific tools such as brain imaging, electrophysiology, and behavioral methods that reveal how the brain functions at both regional and molecular levels. I got to know the difference between **invasive and noninvasive techniques** used to study the brain.

I found it fascinating how attention and emotion are connected, and how our pursuit of pleasure is shaped by the brain's reward systems. We discussed the concept of diminishing returns for pleasures, **the chocolate pastry effect** – how the first bite brings joy, but the pleasure fades with each subsequent one. The discussion on dopamine showed how the drive to seek rewards is often stronger than the satisfaction of getting them.

We also examined the **default mode network**, which supports self-reflection and empathy but can lead to rumination when overactive, and the **salience network**, which identifies what is personally meaningful and helps the brain switch between inward and task focused states. The concept of precondition really stood out to me, showing how our mental state before a situation, like a moment of anger or laughter, can shape our reactions - the **ghussa moment and haha moment**.

Finally, we discussed the Happy Pie, which suggests that happiness depends roughly 50 percent on genetics, 40 percent on intentional actions, and 10 percent on circumstances. Through an empathy test, I saw how quickly our brains respond to the distress of others, even within milliseconds. Overall, this class deepened my understanding of how attention, emotion, and empathy work together to influence happiness and mental well-being.